# Table of Contents

Catalog Home ................................................................. 7  
About CPCC ................................................................. 8  
   Mission and Values ..................................................... 9  
   History of the College ................................................ 11  
Campuses ................................................................. 11  
   Cato Campus ............................................................ 12  
   Central Campus ........................................................ 13  
      Central Campus Tours for Prospective Students .......... 14  
   Harper Campus ........................................................ 14  
   Harris Campus ........................................................ 14  
   Levine Campus ........................................................ 15  
   Merancas Campus ..................................................... 16  
   Enrollment and Student Services Directors ................... 17  
College Policies and Procedures .................................... 17  
   Academic Honors .................................................... 17  
   Attendance ........................................................... 18  
   Late Entry ............................................................ 18  
   Advanced Placement Examination Course Credit Guidelines ... 18  
   Auditing Courses .................................................... 19  
   Changing Grades ..................................................... 19  
   Course Load Regulation .............................................. 19  
   Course Substitution ................................................ 20  
   Course Waiver ....................................................... 20  
   Course Credit Guidelines for Military Service ............... 20  
   College-Level Examination Program (CLEP) ................. 20  
   Credit By Examination ............................................. 21  
   Grading Policy ....................................................... 21  
   Readmission from Suspension .................................... 22  
   Graduation ............................................................ 22  
   International Baccalaureate Course Credit Guidelines ...... 24  
   Repeating Courses .................................................. 24  
   Student Academic Integrity Policy ............................... 24  
   Student Code of Conduct ......................................... 25  
   Student Grievance Procedure .................................... 25  
   Student Records (Transcripts) ................................... 26  
   Transcript Evaluation Process .................................. 28  
Accreditations and Memberships .................................... 28  
Disclosure ...................................................................... 31  
Academic Calendar ...................................................... 32  
Administration and Foundation .................................... 33  
Faculty and Professional Staff ...................................... 34  
Glossary ...................................................................... 34  
Programs and Services ............................................... 36  
Student Services ......................................................... 38  
   Academic Learning Center (ALC) ................................. 39  
   Admissions and Testing ............................................. 39  
   Bookstores ................................................................ 43  
   Career and College Promise ...................................... 44  
   Career Resources ..................................................... 44  
   College Security ...................................................... 45  
   Counseling and Advisement ....................................... 45  
   CPCC Broadcasting .................................................. 46  
   Disability Services ................................................... 46  
   eLearning ............................................................... 47  
   Global Learning ....................................................... 47  
   International Student Services ................................. 47  
   Library Services ...................................................... 47  
   Lost and Found ....................................................... 48  
   Paying for College ................................................... 48  
      Federal Student Financial Aid Penalties for Drug Law Violations ... 50  
      FERPA Guidelines for Inquiries ............................... 50  
      Financial Aid Programs ........................................ 50  
      Financial Aid/Veterans Affairs Fraud and Forgery ........ 56  
      TRIO - Student Support Services ............................. 57  
   Service-Learning Center .......................................... 57  
   Small Business Center ............................................. 57  
   Student Life ........................................................... 57  
   Transfer Resource Center ......................................... 58  
   Tuition and Fees ..................................................... 58  
   Veterans Resources ................................................ 60  
Pre-College Programs ................................................... 66  
   Adult English As A Second Language (Adult ESL) ............ 67  
   Adult High School Diploma (HSD) ............................... 68  
   Foundational Skills ................................................ 69  
   General Educational Development (GED) ...................... 70  
   Human Educational Development (HRD) ....................... 71  
   Pathways to Careers ............................................... 72  
   Associate in Applied Science Degrees, Diplomas & Certificates .... 75  
   Approved General Education Courses for A.A.S. Degree .... 76
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>77</td>
</tr>
<tr>
<td>Advertising + Graphic Design</td>
<td>79</td>
</tr>
<tr>
<td>Air Conditioning, Heating and Refrigeration Technology</td>
<td>80</td>
</tr>
<tr>
<td>Architectural Technology</td>
<td>84</td>
</tr>
<tr>
<td>Automotive Systems Technology</td>
<td>86</td>
</tr>
<tr>
<td>Baking and Pastry Arts</td>
<td>90</td>
</tr>
<tr>
<td>Basic Law Enforcement Training</td>
<td>92</td>
</tr>
<tr>
<td>Business Administration</td>
<td>93</td>
</tr>
<tr>
<td>Cardiovascular Technology</td>
<td>101</td>
</tr>
<tr>
<td>Civil Engineering Technology</td>
<td>103</td>
</tr>
<tr>
<td>Collision Repair and Refinishing Technology</td>
<td>105</td>
</tr>
<tr>
<td>Computer Engineering Technology</td>
<td>106</td>
</tr>
<tr>
<td>Computer Technology Integration</td>
<td>109</td>
</tr>
<tr>
<td>Computer-Integrated Machining Technology</td>
<td>121</td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>125</td>
</tr>
<tr>
<td>Cosmetology</td>
<td>127</td>
</tr>
<tr>
<td>Criminal Justice Technology</td>
<td>129</td>
</tr>
<tr>
<td>Culinary Arts</td>
<td>132</td>
</tr>
<tr>
<td>Cytotechnology</td>
<td>133</td>
</tr>
<tr>
<td>Dental Assisting</td>
<td>134</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>135</td>
</tr>
<tr>
<td>Diesel and Heavy Equipment Technology</td>
<td>136</td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>139</td>
</tr>
<tr>
<td>Electrical Engineering Technology</td>
<td>142</td>
</tr>
<tr>
<td>Electrical Systems Technology</td>
<td>146</td>
</tr>
<tr>
<td>Electronics Engineering Technology</td>
<td>151</td>
</tr>
<tr>
<td>Fire Protection Technology</td>
<td>153</td>
</tr>
<tr>
<td>Foodservice Technology</td>
<td>155</td>
</tr>
<tr>
<td>Geomatics Technology</td>
<td>156</td>
</tr>
<tr>
<td>Geospatial Technology</td>
<td>159</td>
</tr>
<tr>
<td>Graphic Arts and Imaging Technology</td>
<td>164</td>
</tr>
<tr>
<td>Health Information Technology</td>
<td>167</td>
</tr>
<tr>
<td>Horticulture Technology</td>
<td>169</td>
</tr>
<tr>
<td>Hospitality Management</td>
<td>172</td>
</tr>
<tr>
<td>Human Services Technology</td>
<td>176</td>
</tr>
<tr>
<td>Interior Design</td>
<td>182</td>
</tr>
<tr>
<td>Interpreter Education</td>
<td>183</td>
</tr>
<tr>
<td>Lateral Entry Teacher</td>
<td>185</td>
</tr>
<tr>
<td>Manufacturing Technology</td>
<td>185</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>186</td>
</tr>
<tr>
<td>Mechatronics Engineering Technology</td>
<td>189</td>
</tr>
<tr>
<td>Medical Assisting</td>
<td>191</td>
</tr>
<tr>
<td>Medical Laboratory Technology</td>
<td>193</td>
</tr>
<tr>
<td>Medical Office Administration</td>
<td>195</td>
</tr>
<tr>
<td>Non-Destructive Examination Technology</td>
<td>196</td>
</tr>
<tr>
<td>Nursing Assistant</td>
<td>199</td>
</tr>
<tr>
<td>Nursing, Associate Degree</td>
<td>200</td>
</tr>
<tr>
<td>Occupational Therapy Assistant</td>
<td>201</td>
</tr>
<tr>
<td>Office Administration</td>
<td>202</td>
</tr>
<tr>
<td>Ophthalmic Medical Assistant</td>
<td>208</td>
</tr>
<tr>
<td>Paralegal Technology</td>
<td>209</td>
</tr>
<tr>
<td>Pharmacy Technology</td>
<td>211</td>
</tr>
<tr>
<td>Physical Therapist Assistant</td>
<td>213</td>
</tr>
<tr>
<td>Respiratory Therapy</td>
<td>214</td>
</tr>
<tr>
<td>Simulation and Game Development</td>
<td>216</td>
</tr>
<tr>
<td>Surgical Technology</td>
<td>219</td>
</tr>
<tr>
<td>Sustainability Technologies</td>
<td>220</td>
</tr>
<tr>
<td>Turfgrass Management Technology</td>
<td>222</td>
</tr>
<tr>
<td>Welding Technology</td>
<td>224</td>
</tr>
<tr>
<td>Associate in General Education</td>
<td>227</td>
</tr>
<tr>
<td>College Transfer Programs</td>
<td>229</td>
</tr>
<tr>
<td>Associate in Arts (A.A.)</td>
<td>230</td>
</tr>
<tr>
<td>Associate in Fine Arts (A.F.A.)</td>
<td>237</td>
</tr>
<tr>
<td>Associate in Science (A.S.)</td>
<td>247</td>
</tr>
<tr>
<td>Corporate and Continuing Education</td>
<td>248</td>
</tr>
<tr>
<td>Corporate Learning Center</td>
<td>249</td>
</tr>
<tr>
<td>Job and Career Enhancement</td>
<td>249</td>
</tr>
<tr>
<td>Courses and Programs</td>
<td>249</td>
</tr>
<tr>
<td>Aging Studies</td>
<td>249</td>
</tr>
<tr>
<td>Allied Healthcare</td>
<td>250</td>
</tr>
<tr>
<td>Applied Technologies</td>
<td>250</td>
</tr>
<tr>
<td>Automotive, Motorsports and Related Training</td>
<td>252</td>
</tr>
<tr>
<td>Center for Sustainability</td>
<td>252</td>
</tr>
<tr>
<td>Computer and Information Technology</td>
<td>252</td>
</tr>
<tr>
<td>ESL Instructor Fast-Track Training</td>
<td>255</td>
</tr>
<tr>
<td>Economic Recruitment</td>
<td>255</td>
</tr>
<tr>
<td>Financial Services Institute</td>
<td>256</td>
</tr>
<tr>
<td>Fitness Professionals</td>
<td>258</td>
</tr>
<tr>
<td>Health Information Technology</td>
<td>258</td>
</tr>
<tr>
<td>Hospitality and Event Planning</td>
<td>259</td>
</tr>
<tr>
<td>Human Resources</td>
<td>259</td>
</tr>
<tr>
<td>Industry Credentials and Professional Development</td>
<td>260</td>
</tr>
<tr>
<td>International Learning and Study Abroad</td>
<td>260</td>
</tr>
<tr>
<td>Language and Culture</td>
<td>260</td>
</tr>
<tr>
<td>Program</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Economics (ECO)</td>
<td>335</td>
</tr>
<tr>
<td>Education (EDU)</td>
<td>336</td>
</tr>
<tr>
<td>Electric Utility Substation (EUS)</td>
<td>341</td>
</tr>
<tr>
<td>Electrical (ELC)</td>
<td>341</td>
</tr>
<tr>
<td>Electronic Commerce (ECM)</td>
<td>343</td>
</tr>
<tr>
<td>Electronics (ELN)</td>
<td>343</td>
</tr>
<tr>
<td>Engineering (EGR)</td>
<td>345</td>
</tr>
<tr>
<td>English (ENG)</td>
<td>346</td>
</tr>
<tr>
<td>English As a Foreign Language (EFL)</td>
<td>349</td>
</tr>
<tr>
<td>Entertainment Technologies (ENT)</td>
<td>349</td>
</tr>
<tr>
<td>Environmental Science (ENV)</td>
<td>349</td>
</tr>
<tr>
<td>Environmental Science (ENB)</td>
<td></td>
</tr>
<tr>
<td>Fire Protection (FIP)</td>
<td>350</td>
</tr>
<tr>
<td>Floral Design (FLO)</td>
<td>352</td>
</tr>
<tr>
<td>Food Service (FST)</td>
<td>352</td>
</tr>
<tr>
<td>French (FRE)</td>
<td>352</td>
</tr>
<tr>
<td>Geographic Information Systems (GIS)</td>
<td>353</td>
</tr>
<tr>
<td>Geography (GEO)</td>
<td>355</td>
</tr>
<tr>
<td>Geology (GEL)</td>
<td>355</td>
</tr>
<tr>
<td>German (GER)</td>
<td>356</td>
</tr>
<tr>
<td>Gerontology (GRO)</td>
<td>357</td>
</tr>
<tr>
<td>Graphic Arts (GRA)</td>
<td>357</td>
</tr>
<tr>
<td>Graphic Design (GRD)</td>
<td>359</td>
</tr>
<tr>
<td>Health (HEA)</td>
<td>360</td>
</tr>
<tr>
<td>Health Information Technology (HIT)</td>
<td>361</td>
</tr>
<tr>
<td>Heavy Equipment Maintenance (HET)</td>
<td>362</td>
</tr>
<tr>
<td>High Performance Computing (HPC)</td>
<td>363</td>
</tr>
<tr>
<td>History (HIS)</td>
<td>364</td>
</tr>
<tr>
<td>Horticulture (HOR)</td>
<td>365</td>
</tr>
<tr>
<td>Hotel &amp; Restaurant Management (HRM)</td>
<td>368</td>
</tr>
<tr>
<td>Human Services (HSE)</td>
<td>369</td>
</tr>
<tr>
<td>Humanities (HUM)</td>
<td>369</td>
</tr>
<tr>
<td>Hydraulics (HYD)</td>
<td>370</td>
</tr>
<tr>
<td>Industrial Science (ISC)</td>
<td>370</td>
</tr>
<tr>
<td>Information Systems (CIS)</td>
<td>371</td>
</tr>
<tr>
<td>Information Systems Security (SEC)</td>
<td>372</td>
</tr>
<tr>
<td>International Business (INT)</td>
<td>373</td>
</tr>
<tr>
<td>Interpreter Preparation (IPP)</td>
<td>374</td>
</tr>
<tr>
<td>Journalism (JOU)</td>
<td>375</td>
</tr>
<tr>
<td>Landscape Architecture Technol (LAR)</td>
<td>375</td>
</tr>
<tr>
<td>Legal Education (LEX)</td>
<td>376</td>
</tr>
<tr>
<td>Logistics Management (LOG)</td>
<td>378</td>
</tr>
<tr>
<td>Low Impact Development (LID)</td>
<td>378</td>
</tr>
<tr>
<td>Course</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Corporate and Continuing Education Courses</td>
<td>438</td>
</tr>
<tr>
<td>Academic Related (ACA)</td>
<td>439</td>
</tr>
<tr>
<td>Accounting (ACC)</td>
<td>439</td>
</tr>
<tr>
<td>Aerospace and Flight Training (AER)</td>
<td>439</td>
</tr>
<tr>
<td>Agriculture (AGR)</td>
<td>439</td>
</tr>
<tr>
<td>Air Cond, Heating, and Refrig (AHR)</td>
<td>439</td>
</tr>
<tr>
<td>Alternative Energy Technology (ALT)</td>
<td>439</td>
</tr>
<tr>
<td>American Institute of Banking (AIB)</td>
<td>439</td>
</tr>
<tr>
<td>American Sign Language (ASL)</td>
<td>440</td>
</tr>
<tr>
<td>Animal Science (ANS)</td>
<td>440</td>
</tr>
<tr>
<td>Apprenticeship (APP)</td>
<td>440</td>
</tr>
<tr>
<td>Architecture (ARC)</td>
<td>440</td>
</tr>
<tr>
<td>Automotive (AUT)</td>
<td>440</td>
</tr>
<tr>
<td>Aviation Electronics Tech (AET)</td>
<td>440</td>
</tr>
<tr>
<td>Aviation Maintenance (AVI)</td>
<td>440</td>
</tr>
<tr>
<td>Avocation (AVO)</td>
<td>441</td>
</tr>
<tr>
<td>Baking and Pastry Arts (BPA)</td>
<td>443</td>
</tr>
<tr>
<td>Banking and Finance (BAF)</td>
<td>443</td>
</tr>
<tr>
<td>Biotechnology (BTC)</td>
<td>443</td>
</tr>
<tr>
<td>Blueprint Reading (BPR)</td>
<td>443</td>
</tr>
<tr>
<td>Business (BUS)</td>
<td>443</td>
</tr>
<tr>
<td>Cabinetmaking (CAB)</td>
<td>448</td>
</tr>
<tr>
<td>Carpentry (CAR)</td>
<td>448</td>
</tr>
<tr>
<td>Central Sterile Processing (CSP)</td>
<td>449</td>
</tr>
<tr>
<td>Chemistry (CHM)</td>
<td>449</td>
</tr>
<tr>
<td>Clinical Trials Research (CTR)</td>
<td>449</td>
</tr>
<tr>
<td>Code Enforcement (COD)</td>
<td>449</td>
</tr>
<tr>
<td>Communication (COM)</td>
<td>452</td>
</tr>
<tr>
<td>Computed Tomography (CAT)</td>
<td>452</td>
</tr>
<tr>
<td>Computer Applications (CAS)</td>
<td>453</td>
</tr>
<tr>
<td>Computer Science (CSC)</td>
<td>453</td>
</tr>
<tr>
<td>Construction (CST)</td>
<td>453</td>
</tr>
<tr>
<td>Cosmetology (COS)</td>
<td>453</td>
</tr>
<tr>
<td>Criminal Justice (CJC)</td>
<td>453</td>
</tr>
<tr>
<td>Culinary (CUL)</td>
<td>453</td>
</tr>
<tr>
<td>Customized Ind Training Prog (CTP)</td>
<td>454</td>
</tr>
<tr>
<td>Cyber Crime Technology (CCT)</td>
<td>482</td>
</tr>
<tr>
<td>Dental (DEN)</td>
<td>485</td>
</tr>
<tr>
<td>Design: Creative (DES)</td>
<td>485</td>
</tr>
<tr>
<td>Dialysis (DIA)</td>
<td>485</td>
</tr>
<tr>
<td>Drafting (DFT)</td>
<td>485</td>
</tr>
<tr>
<td>Economics (ECO)</td>
<td>485</td>
</tr>
<tr>
<td>Education (EDU)</td>
<td>487</td>
</tr>
<tr>
<td>Electric Line Safety (ELS)</td>
<td>495</td>
</tr>
<tr>
<td>Electrical (ELC)</td>
<td>496</td>
</tr>
<tr>
<td>Electronics (ELN)</td>
<td>496</td>
</tr>
<tr>
<td>Emergency Medical Science (EMS)</td>
<td>496</td>
</tr>
<tr>
<td>Emergency Preparedness (EPT)</td>
<td>496</td>
</tr>
<tr>
<td>Energy (EGY)</td>
<td>496</td>
</tr>
<tr>
<td>Engineering (EGR)</td>
<td>496</td>
</tr>
<tr>
<td>English (ENG)</td>
<td>497</td>
</tr>
<tr>
<td>English As a Foreign Language (EFL)</td>
<td>497</td>
</tr>
<tr>
<td>English As a Second Language (ESL)</td>
<td>497</td>
</tr>
<tr>
<td>Environmental Science (ENV)</td>
<td>499</td>
</tr>
<tr>
<td>Expanding Industry Training (EIT)</td>
<td>501</td>
</tr>
<tr>
<td>Film and Video Production (FVP)</td>
<td>510</td>
</tr>
<tr>
<td>Fire Protection (FIP)</td>
<td>510</td>
</tr>
<tr>
<td>Fisheries (FIS)</td>
<td>527</td>
</tr>
<tr>
<td>Focused Industry Training (FIT)</td>
<td>527</td>
</tr>
<tr>
<td>Foreign Languages (FLI)</td>
<td>532</td>
</tr>
<tr>
<td>Forest Management (FOR)</td>
<td>535</td>
</tr>
<tr>
<td>Funeral Service (FSE)</td>
<td>535</td>
</tr>
<tr>
<td>Furniture (FUR)</td>
<td>535</td>
</tr>
<tr>
<td>General Education Development (GED)</td>
<td>535</td>
</tr>
<tr>
<td>Geographic Information Systems (GIS)</td>
<td>535</td>
</tr>
<tr>
<td>Graphic Arts (GRA)</td>
<td>540</td>
</tr>
<tr>
<td>Graphic Design (GRD)</td>
<td>540</td>
</tr>
<tr>
<td>Gunsmithing (GSM)</td>
<td>540</td>
</tr>
<tr>
<td>Hazardous Materials (HAZ)</td>
<td>540</td>
</tr>
<tr>
<td>Health (HEA)</td>
<td>541</td>
</tr>
<tr>
<td>Health Information Technology (HIT)</td>
<td>547</td>
</tr>
<tr>
<td>Healthcare Management (HMT)</td>
<td>547</td>
</tr>
<tr>
<td>Heavy Equipment Maintenance (HMT)</td>
<td>547</td>
</tr>
<tr>
<td>Heavy Equipment Operation (HEO)</td>
<td>547</td>
</tr>
<tr>
<td>Historic Preservation (HPT)</td>
<td>548</td>
</tr>
<tr>
<td>Degree Area</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Home Economics (HEC)</td>
<td>548</td>
</tr>
<tr>
<td>Homemaking (HMK)</td>
<td>548</td>
</tr>
<tr>
<td>Horticulture (HOR)</td>
<td>549</td>
</tr>
<tr>
<td>Hospitality, Travel &amp; Tourism (HOS)</td>
<td>549</td>
</tr>
<tr>
<td>Human Resources Development (HRD)</td>
<td>550</td>
</tr>
<tr>
<td>Human Services (HSE)</td>
<td>551</td>
</tr>
<tr>
<td>Hydraulics (HYD)</td>
<td>551</td>
</tr>
<tr>
<td>Industrial Science (ISC)</td>
<td>551</td>
</tr>
<tr>
<td>Information Systems Security (SEC)</td>
<td>551</td>
</tr>
<tr>
<td>Insurance (INS)</td>
<td>551</td>
</tr>
<tr>
<td>International Business (INT)</td>
<td>552</td>
</tr>
<tr>
<td>Internet Technologies (ITN)</td>
<td>552</td>
</tr>
<tr>
<td>Journalism (JOU)</td>
<td>552</td>
</tr>
<tr>
<td>Laboratory Technology (LBT)</td>
<td>556</td>
</tr>
<tr>
<td>Language (LAN)</td>
<td>556</td>
</tr>
<tr>
<td>Learning Lab (LLB)</td>
<td>559</td>
</tr>
<tr>
<td>Legal Education (LEX)</td>
<td>559</td>
</tr>
<tr>
<td>Logistics Management (LOG)</td>
<td>559</td>
</tr>
<tr>
<td>Machining (MAC)</td>
<td>559</td>
</tr>
<tr>
<td>Maintenance (MNT)</td>
<td>559</td>
</tr>
<tr>
<td>Management, Leadership, Superv (MLS)</td>
<td>559</td>
</tr>
<tr>
<td>Marketing and Retailing (MKT)</td>
<td>560</td>
</tr>
<tr>
<td>Masonry (MAS)</td>
<td>560</td>
</tr>
<tr>
<td>Mathematics (MAT)</td>
<td>560</td>
</tr>
<tr>
<td>Mechanical (MEC)</td>
<td>560</td>
</tr>
<tr>
<td>Mechanics and Maintenance (MEM)</td>
<td>560</td>
</tr>
<tr>
<td>Medical Assisting (MED)</td>
<td>561</td>
</tr>
<tr>
<td>Medical Laboratory (MLA)</td>
<td>561</td>
</tr>
<tr>
<td>Medical Sonography (SON)</td>
<td>561</td>
</tr>
<tr>
<td>Mental Health (MHT)</td>
<td>561</td>
</tr>
<tr>
<td>Military Science (MSI)</td>
<td>561</td>
</tr>
<tr>
<td>Miscellaneous (MIC)</td>
<td>562</td>
</tr>
<tr>
<td>New Industry Training (NIT)</td>
<td>563</td>
</tr>
<tr>
<td>Nuclear Maintenance (NUC)</td>
<td>567</td>
</tr>
<tr>
<td>Nursing (NUR)</td>
<td>567</td>
</tr>
<tr>
<td>OSHA, EPA, HAZMAT &amp; Other Gov (OSH)</td>
<td>567</td>
</tr>
<tr>
<td>Office Science Education (OSH)</td>
<td>570</td>
</tr>
<tr>
<td>Opticianry (OPT)</td>
<td>571</td>
</tr>
<tr>
<td>Pharmacy (PHM)</td>
<td>571</td>
</tr>
<tr>
<td>Photography (PHO)</td>
<td>571</td>
</tr>
<tr>
<td>Physical Fitness Technology (PSF)</td>
<td>571</td>
</tr>
<tr>
<td>Physical Therapy (PTH)</td>
<td>571</td>
</tr>
<tr>
<td>Plumbing (PLU)</td>
<td>571</td>
</tr>
<tr>
<td>Postal Service (POS)</td>
<td>572</td>
</tr>
<tr>
<td>Pre-Employment Training (PRE)</td>
<td>572</td>
</tr>
<tr>
<td>Printing (PRN)</td>
<td>572</td>
</tr>
<tr>
<td>Process Control Instrumentation (PCI)</td>
<td>573</td>
</tr>
<tr>
<td>Production Crafts (PRC)</td>
<td>573</td>
</tr>
<tr>
<td>Pulp and Paper Technology (PPT)</td>
<td>573</td>
</tr>
<tr>
<td>Radiography (RAD)</td>
<td>573</td>
</tr>
<tr>
<td>Reading (RED)</td>
<td>573</td>
</tr>
<tr>
<td>Real Estate (RLS)</td>
<td>573</td>
</tr>
<tr>
<td>Real Estate Appraisal (REA)</td>
<td>573</td>
</tr>
<tr>
<td>Recreation (REC)</td>
<td>573</td>
</tr>
<tr>
<td>Refrigeration (REF)</td>
<td>577</td>
</tr>
<tr>
<td>Safety (SAF)</td>
<td>577</td>
</tr>
<tr>
<td>Self-Supporting Occupational E (SEF)</td>
<td>577</td>
</tr>
<tr>
<td>Simulation &amp; Game Development (SGD)</td>
<td>577</td>
</tr>
<tr>
<td>Small Business Centers (SBC)</td>
<td>577</td>
</tr>
<tr>
<td>Spanish (SPA)</td>
<td>577</td>
</tr>
<tr>
<td>Surgery (SUR)</td>
<td>578</td>
</tr>
<tr>
<td>Surveying (SRV)</td>
<td>578</td>
</tr>
<tr>
<td>Taxidermy (TXY)</td>
<td>578</td>
</tr>
<tr>
<td>Telecommunications Technology (TCT)</td>
<td>578</td>
</tr>
<tr>
<td>Textiles (TEX)</td>
<td>578</td>
</tr>
<tr>
<td>Traffic (TRA)</td>
<td>578</td>
</tr>
<tr>
<td>Turfgrass Management (TRF)</td>
<td>578</td>
</tr>
<tr>
<td>Water and Wastewater Treatment (WAT)</td>
<td>578</td>
</tr>
<tr>
<td>Web Technologies (WEB)</td>
<td>578</td>
</tr>
<tr>
<td>Welding (WLD)</td>
<td>578</td>
</tr>
<tr>
<td>Wildland Fire (WLF)</td>
<td>578</td>
</tr>
<tr>
<td>Wood Products (WPP)</td>
<td>578</td>
</tr>
<tr>
<td>Index</td>
<td>579</td>
</tr>
</tbody>
</table>
Vision
Central Piedmont Community College intends to become the national leader in workforce development.

Mission
Central Piedmont Community College is an innovative and comprehensive College that advances the life-long educational development of students consistent with their needs, interests and abilities while strengthening the economic, social and cultural life of its diverse community.

The College accomplishes this purpose by providing high-quality, flexible pre-baccalaureate and career-focused educational programs and services which are academically, geographically and financially accessible. This purpose requires a fundamental commitment to student success through teaching and learning excellence within a supportive environment.

Disclaimer: Please Note
The information in the catalog is presumed correct at the time of publishing. However, the reader should be aware that the programs, regulations, policies and other information contained in the catalog are subject to change without notice. If you have questions and are a CPCC student, please contact your faculty advisor, program chair, or instructor.

Information about Central Piedmont Community College’s graduation and transfer rates are available upon request from the Office of the Associate Vice President of Planning and Research at 704.330.6268. Campus crime statistics are available for review on the College website, in the student handbook and at campus security offices and reception areas. For other inquiries or clarifications, please contact the Office of the Vice President for Learning at 704.330.6730 or by mail at CPCC, P.O. Box 35009, Charlotte, NC 28235-5009.
About CPCC
About CPCC

CPCC has been a part of the Charlotte landscape for 50 years and is focused on becoming the national leader in workforce development.

Over the years it has not only expanded its footprint, but also its academic programs. Today, CPCC offers close to 300 degree, diploma and certification programs; customized corporate training; market-focused continuing education courses and special interest classes that respond to the needs of the local marketplace.

As a result, CPCC welcomes more than 70,000 individuals to its six campuses each year, serving as a vital community partner to business and industry leaders and residents located throughout Mecklenburg County and beyond.

Mission and Values

Central Piedmont Community College’s Mission Statement

Central Piedmont Community College is an innovative and comprehensive College that advances the life-long educational development of students consistent with their needs, interests and abilities while strengthening the economic, social and cultural life of its diverse community.

The College accomplishes this purpose by providing high quality, flexible pre-baccalaureate and career-focused educational programs and services which are academically, geographically and financially accessible. This purpose requires a fundamental commitment to student success through teaching and learning excellence within a supportive environment.

Vision

Central Piedmont Community College intends to become the national leader in workforce development.

Strategic Goals

Goal 1 Student Learning and Success

Ensure student learning and success by promoting an innovative and supportive learning environment.

1. Offer and promote a variety of programs and services that address diverse cultures and prepare students for success in a global society.
2. Enhance teaching and learning experiences by increasing innovative techniques and interactive technologies.
3. Support successful student transitions to CPCC and then on to universities, the workforce and the community.
4. Engage students as responsible partners in the learning process.
5. Enhance communication and collaboration to support student learning and success.

Goal 2 Organizational Learning and Development

Foster an organizational culture that maximizes individual growth through expanded learning opportunities.

1. Recruit, retain, develop, reward and empower employees who share responsibility for student learning and success.
2. Ensure that part-time employees are engaged and supported in the learning environment at the College.
3. Facilitate a more collaborative and cohesive learning environment in line with the College’s vision, mission and values.
4. Prepare employees to anticipate and respond appropriately to regional issues within a global framework.
5. Encourage the analysis and interpretation of data to inform decision making.

Goal 3 Community Catalyst

Be a catalyst for the educational and socio-economic development of the community through partnerships, coalitions, life-long learning and civic engagement.

1. Expand partnerships with business and industry to determine the future high-demand job growth areas and the skills needed for those jobs.
2. Develop bridges with business, industry and educational partners to benefit existing and emerging workers.
3. Increase public knowledge of the educational opportunities and services at CPCC.
4. Respond to the vocational and intellectual learning needs of an increasingly diverse community.

Goal 4 Organizational Capacity to Serve

Plan and manage human, physical, financial and technological resources so that College programs, services and infrastructure meet student and community needs.

1. Explore and implement ways to increase funding for educational opportunities for students and to establish and sustain programs.
2. Plan and manage growth to optimize organizational effectiveness.
3. Collaborate with business, education and other organizations to secure needed levels of public and private support.
4. Promote the effective and efficient utilization of human, physical, fiscal and technological resources to reinforce public trust.
5. Communicate the value and benefits of the College to increase community involvement and support.
6. Expand and manage facilities and operations in an environmentally and fiscally responsible manner.

Goal 5 Organizational Excellence and Innovation

Promote and sustain innovation, entrepreneurship and excellence throughout the organization.

1. Expand the use of collaborative teams to innovatively respond to emerging needs.
2. Institute strategies that measure outcomes and analyze results to improve organizational effectiveness and excellence.
3. Engage in continuous improvement and move toward a culture of evidence to effectively measure efforts and increase positive outcomes.
College Values

Shared values and clear expectations affect how well CPCC succeeds in accomplishing its mission. Based upon this belief, we hold the following values:

**Learning**

- How do we provide a supportive environment that is student-centered and promotes life-long learning?
- How do we place the needs of learners first?
- How do our resource allocations match the needs for student learning?
- How do we work together across the College to meet learners’ needs?

**Inclusiveness**

- How do we encourage collaborative partnerships that enhance the economic vitality and quality of life in our community?
- How do we honor and promote diversity through our people, curricula and processes?
- How do we foster community within the College?
- How do we provide a welcoming and accepting environment?

**Responsiveness**

- How do we act upon learners’ feedback on their learning experiences at the College?
- How do we create a work environment that fosters learning?
- How do we anticipate and respond to the needs of our students, community and business partners?

**Excellence**

- How do we deliver quality processes, services and learning experiences?
- How do we encourage faculty and staff to enhance their skills and knowledge?
- How do we demonstrate that we expect excellence for all students, faculty and staff?
- How do we recognize and celebrate achievements?

**Integrity**

- How do we provide an ethical and respectful environment?
- How do we foster honest and fair relationships?
- How do we recognize our obligation to be good stewards of our resources?
- How do we continue to earn the public’s trust through principled leadership?

**Accessibility**

- How do we reduce financial, environmental, social and educational barriers to promote student learning and success?
- How do we ensure that a range of choices in programs and services is accessible to diverse learners?
- How do we create a positive environment that expands opportunities and experiences for all members of our community?

Innovation

- How do we foster an environment that encourages an open exchange of ideas?
- How do we encourage and reward exploration, inquiry, risk-taking and entrepreneurship?
- How do we anticipate change and respond with innovative programs and service to internal and external trends?

Learning College

In 2003, Central Piedmont Community College launched an institutional initiative to transform the College into a more learning-centered organization. A learning college places learning first in all decisions and focuses on documenting learning outcomes. CPCC encourages students to think for themselves and employees to grow professionally. We consider the entire College a community in learning and work collaboratively to create substantive change in our learners, our employees, and the organization as a whole. We consider ourselves successful only when improved learning can be documented.

Core Competencies

In support of the Learning College initiative, four core competencies have been identified as important to the success of CPCC graduates. All graduates of associate degree programs are expected to demonstrate proficiency in each of the following competencies as evidenced through learning activities within the program:

- Communication: the ability to read, write, speak, listen, and use nonverbal skills effectively with different audiences
- Critical Thinking: the ability to think using analysis, synthesis, evaluation, problem solving, judgment, and the creative process
- Personal Growth and Responsibility: the ability to understand and manage self, to function effectively in social and professional environments, and to make reasoned judgments based on an understanding of the diversity of the world community
- Information Technology and Quantitative Literacy: the ability to locate, understand, evaluate, and synthesize information and data in a technological and data-driven society

Accountability Measures

The NCCCS State Performance Measures 2012-2013 (based on 2011-2012 data)

In spring 2013, new performance measures took effect for the 58 community colleges in North Carolina. Three benchmarks were set for each measure: the mean (system average), the goal (one standard deviation above the mean) and the baseline (two standard deviations below the mean). Colleges will receive some funding if they score at or above the mean and will receive additional funding if they score at or above the goal. The eight measures are as follows (benchmarks = mean/goal/baseline):

1. Progress of Basic Skills students:

   The percentage of students who progress as defined by an educational functioning level (41.0% / 51.2% / 20.6%). The passing rate for CPCC was 49.8%.

2. Passing rates for licensure and certification examinations:
The aggregate institutional passing rate of first-time test-takers on licensure exams (85.0% / 91.7% / 71.0%). The passing rate for CPCC was 92.3%.

3. College Transfer Performance:

Associate degreed students plus those earning 30+ credits and transferring will have a GPA of 2.0 or greater within the academic year at the transfer institution (86.7% / 93.6% / 71.2%). The transfer success rate for CPCC was 86.9%.

4. Success Rate of Developmental Students in Subsequent College-level English Courses:

The percentage of previous developmental English students who successfully complete a credit English course with a "C" or better upon first attempt (63.7% / 74.9% / 45.2%). The passing rate for CPCC was 77.8%.

5. Success Rate of Developmental Students in Subsequent College-level Math Courses:

The percentage of previous developmental students who successfully complete a credit math course with a "C" or better upon first attempt (64.8% / 75.4% / 47.5%). The passing rate for CPCC was 71.5%.

6. First Year Progression:

The percentage of first-time, fall credential-seeking students attempting at least 12 hours within their first academic year who successfully complete ("C" or better) at least 12 of those hours (67.7% / 74.6% / 53.2%). The success rate for CPCC was 70.3%.

7. Curriculum Completion:

The percentage of first-time, full-time credential-seeking students who graduate, transfer or are still enrolled with at least 36 hours after six years (41.6% / 45.6% / 28.6%). The success rate for CPCC was 36.7%.

8. GED Diploma Passing Rate:

The percentage of students taking at least one GED test during a program year who received a GED diploma during the program years (71.1% / 82.0% / 49.3%). The passing rate for CPCC was 75.1%.

History of the College

Central Piedmont Community College’s history centers not so much on bricks and mortar, but rather on the many people who have played a role in developing the College. So many unsung heroes—from secretaries to counselors to faculty to administrators—have dedicated themselves to building the great College that CPCC is today.

Standouts on the CPCC roster include a Pulitzer Prize winner, a Metropolitan Opera star, an Olympic gold medalist, a Congressional Medal of Honor winner, a television actress and a pro football player. Countless other chefs, health care providers, technicians, real estate brokers, paralegals, firefighters, law enforcement officers, and trades people serve our community and share CPCC’s proud tradition.

CPCC has been providing educational opportunities since 1963, the year that the North Carolina General Assembly passed the community college bill. Opening as a fully integrated institution under founding president Dr. Richard H. Hagemeyer, the College combined the programs of Central Industrial Education Center on Elizabeth Avenue and Mecklenburg College on Beatties Ford Road.

Since its beginning, the College has been a national pacesetter in education. Innovative in its teaching methods, CPCC garnered national recognition for its individualized and computer-assisted instruction. The College was invited to join the prestigious League for Innovation in the Community College and has been a member since 1970.

After Dr. Richard Hagemeyer’s retirement in 1986, Dr. Ruth Shaw was selected as the College’s second president. Under her leadership, the College added the Advanced Technologies Center and the Center for Automotive Technology, and began acquiring land for additional campuses.

Dr. Tony Zeiss, CPCC’s third president, has led the College since December 1992. He is devoted to CPCC’s vision and mission of serving students and the community through customized training and workforce development. Under his direction, CPCC became a multi-campus community college in 1996 with the conversion of the North Area Learning Center to the North Campus. Four other campuses subsequently opened: the Levine Campus in 1998, the Harper Campus in 1999, the Harris Campus in 2001, and the Cato Campus in 2002. In May 2011, North Campus was renamed the Merancas Campus. CPCC now has six full-service campuses across Mecklenburg County.

CPCC has grown from a small College with a dozen programs serving 1,600 students to one with 309 degree, diploma, and certificate programs serving approximately 70,000 people in an array of credit and non-credit offerings. The College is the county’s premier workforce development resource, offering its educational programs and services throughout the area.

As always, the College’s goal is to serve the community. The citizens of Mecklenburg County know that their 50-year investment in CPCC is changing their lives for the better.
Central Campus (https://nextcatalog.cpcc.edu/aboutcpcc/campuses/centralcampus) — 704.330.2722 — 1201 Elizabeth Avenue, Charlotte, NC 28204
Harper Campus (https://nextcatalog.cpcc.edu/aboutcpcc/campuses/harpercampus) — 704.330.4400 — 315 West Hebron Street, Charlotte, NC 28273
Harris Campus (https://nextcatalog.cpcc.edu/aboutcpcc/campuses/harriscampus) — 704.330.4601 — 3210 CPCC Harris Campus Drive, Charlotte, NC 28208
Levine Campus (https://nextcatalog.cpcc.edu/aboutcpcc/campuses/levinecampus) — 704.330.4200 — 2800 Campus Ridge Road, Matthews, NC 28105
Merancas Campus (https://nextcatalog.cpcc.edu/aboutcpcc/campuses/merancascampus) — 704.330.4100 — 11930 Verhoeff Drive, Huntersville, NC 28078

Cato Campus
704.330.4800
www.cpcc.edu/campuses/cato

History

The Cato Campus, located on 34 acres at the corner of W.T. Harris Boulevard and Grier Road, houses the Professional Careers Division (Paralegal, Interpreter Education and ASL, Horticulture, Turfgrass and Office Administration) and offers Curriculum, College Transfer, Corporate and Continuing Education and Basic Skills programs.

Cato I opened in 2002 with approximately 48,000 square feet of classrooms, computer labs, offices, and student services, as well as a bookstore and Law Library. Also included in the first phase was the opening of a 7,500 square foot Horticulture building and a 4,500 square foot attached greenhouse. Using 2,000 state bonds, Cato II opened in 2007, bringing an additional 48,000 square feet of classrooms, offices, a full-service library and the Cato Middle College High School. In 2011, Cato II was renovated to include an expanded Bookstore, Café, Student Life Center and study areas in the Learning Lounge.

Cato is home to a diverse group of students and programs and is now the third largest of the CPCC campuses with comprehensive services for curriculum, ESL/Adult High School/GED and Continuing Education students. Degree seeking students can complete all coursework in the academic programs housed on the Cato Campus as well as many requirements for other A.A. or A.S. college transfer programs.

Cato Middle College High School

This partnership between CPCC and CMS is designed for high school juniors and seniors who want to complete their high school graduation requirements while earning college credit through CPCC. The program opened in the fall of 2007 with 57 students and has reached capacity at 200 students. The program has earned the school distinction as a North Carolina “School of Excellence” and most graduates have gone on to attend a two- or four-year college/university. Applications for admission may be obtained from the CMCHS Principal, Mr. Joey Burch, located on the Cato Campus.

Major Programs/Courses Offered

Horticulture Technology (A.A.S. Degree, Diploma, Certificates)
Paralegal Technology (A.A.S. Degree, Post-baccalaureate Diploma)
Interpreter Education (A.A.S. Degree)

Turfgrass Management Technology (A.A.S. Degree, Diploma, Certificates)
Corporate and Continuing Education
College Transfer (A.A. or A.S. Degree courses) including: English, Math, Reading, Communications, Behavioral and Social Sciences, Humanities, etc.
Pre-College and Community Development (Basic Skills)
English as a Second Language (ESL)
Adult High School (AHS)
General Educational Development (GED)

Services

In addition to day and evening courses, the Cato Campus offers many services for students including: Admissions, Registration, Student Records, Counseling & Advising, Cashiering, Career Services, Disability Services, Financial Aid, Cooperative Education and Placement Testing. Also available on campus are full-time security, a full bookstore, main Library and Law Library and a variety of activities through Student Life. ESL, Adult HS and GED student services are available as well. In addition, there is an ATM machine on campus as well as vending machines in each building. A Learning Lounge, Café, Bookstore and Student Life office are located on the ground floor of Cato II.

The Cato Campus Library is in Room 250, Cato II. The Cato Law Library is in Room 200, Cato I.

Facilities

The facility sits on one of the higher points of land along W.T. Harris Boulevard, with a natural, wooded acreage that includes rock outcroppings and a mile-long nature walk. The campus’ signature dome is easily visible to passing motorists.

The campus has two main buildings for classrooms, labs, offices and other instructional support space. A third free-standing Horticulture building, attached greenhouse and turfgrass plots provide opportunities for hands-on instruction. The campus is also equipped with a separate Law Library and American Sign Language (ASL) lab.

CATS Services

Public transportation is provided at the Cato Campus by Charlotte Area Transit. Route 3 (East to West) and Route 29 (North to South) run every 30 minutes, Monday–Saturday.

Dean

The dean of the Cato Campus is Janet Malkemes.

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>X</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Services</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
</tbody>
</table>
Central Campus

704.330.2722
www.cpcc.edu/campuses/central

History
In 1963, the North Carolina General Assembly passed the community college bill. Opening as a fully integrated institution, Central Piedmont Community College combined the programs of the Central Industrial Education Center (CIEC) on Elizabeth Avenue and Mecklenburg College on Beatties Ford Road. The College sold its property on Beatties Ford Road and developed a campus around the old Central High School complex located at Elizabeth Avenue and Kings Drive. As the College acquired surrounding property, demolished buildings and closed streets, the original 3.94 acres expanded into a beautiful, tree shaded, 31-acre Central Campus. This campus, the largest in the College’s multi-campus system, serves more than 25,000 students annually. Central Campus houses: an Advanced Technologies Center, Levine Information Technology Building, Dale F. Halton Theater and Pease Auditorium for the performing arts and many other facilities. Recent renovations and newly completed buildings include the Belk and Health Careers Building, the Philip L. Van Every Culinary Arts Center, the Worrell building, the Educational Center, Citizens Center and the Center for Arts Technology.

High Schools Near the Campus
High Schools near Central Campus are Garinger, Harding University, Myers Park, Philip O. Berry Academy of Technology and West Charlotte.

Major Programs/Courses Offered
Architecture
Arts and Communication
Business Administration
College and Career Readiness
College Transfer
Corporate and Continuing Education
Engineering Technologies
Entrepreneurship and Small Business

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Learning Center (tutoring)</td>
<td>X</td>
</tr>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>#</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>College and Career Readiness</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Services</td>
<td>X</td>
</tr>
<tr>
<td>Family Resource Center</td>
<td>X</td>
</tr>
<tr>
<td>First Year Experience</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>X</td>
</tr>
<tr>
<td>Graduation Services</td>
<td>X</td>
</tr>
<tr>
<td>Hot Food</td>
<td>X</td>
</tr>
<tr>
<td>Library</td>
<td>X</td>
</tr>
<tr>
<td>Outreach &amp; Recruitment</td>
<td>X</td>
</tr>
<tr>
<td>Placement Testing</td>
<td>X</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>X</td>
</tr>
<tr>
<td>Registration</td>
<td>X</td>
</tr>
<tr>
<td>Service-Learning</td>
<td>X</td>
</tr>
<tr>
<td>Student Computer Labs</td>
<td>X</td>
</tr>
<tr>
<td>Student Life</td>
<td>X</td>
</tr>
<tr>
<td>Student Records</td>
<td>X</td>
</tr>
<tr>
<td>Student Success Center</td>
<td>X</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>X</td>
</tr>
<tr>
<td>Tour for Prospective Students</td>
<td>X</td>
</tr>
<tr>
<td>Transfer Resource Center</td>
<td>X</td>
</tr>
</tbody>
</table>
Central Campus Tours for Prospective Students

The College encourages individuals and groups to contact the Enrollment Services department to schedule a guided tour. You will gain unique program insights based on specific interests. Please call 704.330.6040 to schedule an appointment for a comprehensive tour.

Harper Campus

704.330.4400
www.cpcc.edu/campuses/harper

History

Designed for teaching Applied Technology and Construction programs, the Harper Campus provides specialized, state-of-the-art labs for hands-on training in addition to classroom instruction. The campus has a full offering of classes that transfer to a college or university, pre-college programs, and Corporate and Continuing Education classes. Opened in 1999 as Southwest, the campus was rededicated in September 2004 as Harper Campus. Conveniently located in the Arrowood and Westinghouse business corridor, Harper Campus functions as a training partner with local business and industry.

High Schools Near the Campus

The high schools near Harper Campus are EE Waddell Language Academy, Myers Park, Olympic and South Mecklenburg.

Major Programs/Courses Offered

Advertising + Graphic Design
Air Conditioning, Heating and Refrigeration
Construction Trades
The Construction Institute
Construction Management
Electrical Technology
Graphic Arts and Imaging Technology
Harper National Flexographic Center
Non-Destructive Examination
Welding Technology
Corporate and Continuing Education
Courses designed to transfer to a college or university:
English, Math, Reading, Communications, Behavioral and Social Sciences, Humanities and Fine Arts.
Pre-College programs
English as a Second Language (ESL)
Adult Basic Literacy Program (ABLE)
General Educational Development (GED)

Services

Services include: admissions, counseling and advising, registration, placement testing, student records, career services, tutoring, cashiering, evening and weekend classes, financial aid, veterans services, student life, services for students with disabilities, parking, security and cooperative education.
Harper Campus library is in HP 343.

Facilities

Harper Campus is a comprehensive facility with nine computer labs, 23 applied technology labs (construction, HVAC, welding, electrical/electronics, flexography, screen printing), 23 classrooms, auditorium, conference room, science lab, English as a Second Language (ESL) lab, Adult Basic Literacy Program (ABLE) and General Educational Development (GED) lab, testing center, library, bookstore and student life center.

Dean

The dean of the Harper Campus is Jay Potter.

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>X</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Services</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>X</td>
</tr>
<tr>
<td>Graduation Services</td>
<td>X</td>
</tr>
<tr>
<td>Library</td>
<td>X</td>
</tr>
<tr>
<td>Outreach &amp; Recruitment</td>
<td>X</td>
</tr>
<tr>
<td>Placement Testing</td>
<td>X</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>X</td>
</tr>
<tr>
<td>Registration</td>
<td>X</td>
</tr>
<tr>
<td>Student Computer Labs</td>
<td>X</td>
</tr>
<tr>
<td>Student Life</td>
<td>X</td>
</tr>
<tr>
<td>Student Records</td>
<td>X</td>
</tr>
<tr>
<td>Student Success Center</td>
<td>X</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>X</td>
</tr>
<tr>
<td>Tour for Prospective Students</td>
<td>X</td>
</tr>
<tr>
<td>Vending Machines</td>
<td>X</td>
</tr>
</tbody>
</table>

Harris Campus

704.330.4601
www.cpcc.edu/campuses/harris

History

The Harris Campus first opened in 2001 and expanded in 2005 with the addition of Building 2 and the Harris Conference Center. Located near the intersection of Billy Graham Parkway and Morris Field Drive, the Harris Campus provides a multi-purpose auditorium, classrooms and various labs to support the learning needs of students and business clients.
The Harris Conference Center occupies the first floor of Building 2 and primarily serves business and industry clients. Corporate and Continuing Education classrooms on the second floor serve adults in various career-focused courses and certification programs. Corporate Learning and the CPCC Re-Careering Services are also located on Harris Campus.

High Schools Near the Campus
The high schools nearest to the Harris Campus are Harding University, West Charlotte, West Mecklenburg and Philip O. Berry Academy of Technology.

Major Programs/Courses Offered
Adult High School
Baking and Pastry Arts
Charlotte Cooks™
Computer Training
Corporate and Continuing Education
Corporate Learning
Customized Training
Dental Assisting
Dietary Managers Training Program
Early Childhood Education
Economic Development and Career Readiness
English as a Second Language (ESL)
Financial Services Institute
Fire Protection Technology
Foundational Skills
General Education and College Transfer
General Educational Development (GED)
Human Resources Development
Mortgage Banking
Management and Leadership Development
Notary
OSHA Training
Personal Enrichment
Process Improvement
Real Estate, Appraisal and Property Management
Sustainability

Services
Services include day/evening/weekend classes, admissions, advising, career services, cashier, counseling, financial aid, placement testing, registration, student computer labs, student life, student records, copy machines, public transportation, vending machines and convenient parking. The Harris Campus library is in Room 2100, Building 1.

Facilities
The Harris Campus has two separate buildings. Building 1 (H1) includes 22 classrooms which serve the bulk of general education and curriculum classes. Building 2 (H2) first floor consists of the Harris Conference Center and the second floor has 11 classrooms to serve students and clients in Corporate and Continuing Education.

Dean
The dean of the Harris Campus is Mary Vickers-Koch.

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>X</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Services</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>X</td>
</tr>
<tr>
<td>Graduation Services</td>
<td>X</td>
</tr>
<tr>
<td>Hot Food</td>
<td>X</td>
</tr>
<tr>
<td>Library</td>
<td>X</td>
</tr>
<tr>
<td>Outreach &amp; Recruitment</td>
<td>X</td>
</tr>
<tr>
<td>Placement Testing</td>
<td>X</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>X</td>
</tr>
<tr>
<td>Registration</td>
<td>X</td>
</tr>
<tr>
<td>Student Computer Labs</td>
<td>X</td>
</tr>
<tr>
<td>Student Life</td>
<td>X</td>
</tr>
<tr>
<td>Student Records</td>
<td>X</td>
</tr>
<tr>
<td>Student Success Advisor</td>
<td>X</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>X</td>
</tr>
<tr>
<td>Tour for Prospective Students</td>
<td>X</td>
</tr>
<tr>
<td>Vending Machines</td>
<td>X</td>
</tr>
</tbody>
</table>

Levine Campus
704.330.4200
www.cpcc.edu/campuses/levine

History
The Levine Campus of CPCC opened for classes in the fall of 1998. It was the second full-service campus to open away from the Central Campus. It is a 230,000 square foot mall type design, with all services under the same roof. Serving more than 12,000 students, the current facility is near maximum capacity with classes running seven days per week.

High Schools Near the Campus
The high schools close to the Levine Campus are Ardrey Kell, Butler, East Mecklenburg, Independence and Providence.

Major Programs/Courses Offered
The classes offered are about one-half curriculum and about one-half continuing education. The majority of curriculum courses are for students seeking a transfer to a four-year college and for students seeking a two-year degree in business administration. Non-degree courses and programs in Corporate and Continuing Education are a wide array of classes to help meet the needs of those not intending to transfer to other colleges. These classes vary in length, starting and ending dates and subject. They are designed to meet the needs of the community at
About CPCC

large, ranging from mandatory licensure updates to personal enrichment, recreation and leisure classes.

Services

Services include: admissions, counseling and advising, registration, placement testing, career services, cashiering, evening and weekend classes, financial aid, veteran’s services, student life, disabilities counseling, parking, security and cooperative education. Food service during the week is provided by Subway and Victory Coffee. The Levine Campus Library is in LV 3120, with a group study room available.

Facilities

Located beside a small lake, the Levine Campus has 1,497 adjacent parking spaces. The campus houses 110 full-time faculty and staff and more than 150 part-time faculty and staff. It has more than 72 classrooms with capacities from 20 to 95 seats, including 42 state-of-the-art “smart classrooms.” About 25 percent are computer instruction classrooms with more than 700 computer stations. The student commons area features a cyber café. The facility also includes two art rooms, two biology and three chemistry flex labs, two Student Technology Centers, two dance/aerobics room, a fitness/weight room, a Transfer Resource Center and an Academic Learning Center which includes tutoring, Language Lab, and Placement and Course Testing Service.

Joe Hendrick Center for Automotive Technology

The Joe Hendrick Center for Automotive Technology on the Levine Campus was made possible by a generous donation from Mr. Rick Hendrick. The center is a 34,000 square foot high-tech automotive instructional facility that houses the BMW, General Motors and Honda automotive curriculum programs and the GM regional training center. Annually the Joe Hendrick Center serves more than 3,000 students who aspire to be automotive technicians as well as technicians who seek updated automotive technical skills. The Joe Hendrick Center’s electrical and fuel labs feature cutting edge automotive system simulators that can be programmed and diagnosed. The computer lab offers students the most current repair data from CPCC’s automotive manufacturer training partners. More than 40 late model vehicles are used as training aids in the labs. The Joe Hendrick Center is truly a state-of-the-art training facility.

Dean

The dean of the Levine Campus is Dr. Edith Valladares McElroy.

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Learning Center</td>
<td>X</td>
</tr>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>X</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
</tbody>
</table>

Merancas Campus

704.330.4100
www.cpcc.edu/campuses/merancas

History

The Merancas Campus (formerly North Campus) was the first of CPCC’s area campuses. The main office number is 704.330.4100.

The Claytor Building (CL), named for the former Chairman of the CPCC Board of Trustees, Bill Claytor, was dedicated as the North Center in October 1990. The North Center became North Campus with the addition of the Public Safety Building six years later. In May 2011, North Campus became Merancas Campus, named for the Merancas Foundation, Inc. of Charlotte, N.C.

The Public Safety Building, funded with local bond money, is the result of a collaborative effort that included area law enforcement professionals, community college leaders and relevant public groups. Groundbreaking ceremonies were held in October, 1995 and the Public Safety Building was occupied in December 1996. On November 3, 2000, this building became the Claudia Watkins Belk Center for Justice (CJ), named after one of Charlotte’s most prestigious and prominent citizens.

The Transport Systems Technology Building (TS), occupied in the fall of 2006, was funded by a state bond referendum. The TS Building houses the Automotive Technology, Autobody Repair and Heavy Equipment Technology programs, as well as a variety of other general education classes and instructors’ offices.

High Schools Near the Campus

The high schools near the Merancas Campus are North Mecklenburg, Hopewell, Lake Norman Charter, Hough and Mallard Creek.

Major Programs/Courses Offered

Public Safety (Corporate and Continuing Education)
Criminal Justice Technology
Basic Law Enforcement Training
Forensics Institute: American Academy of Applied Forensics
Corporate and Continuing Education Classes
College Transfer Classes
Pre-College
Classes leading towards A.A./A.S. degrees
Transport Systems Technologies
Automotive Systems Technology
Auto Body Repair
General Educational Development (GED)
Heavy Equipment and Transport Technology
Motorsports Related Offerings
Race Car Technology Certificate (under Automotive Systems Technology Degree Program)
Corporate and Continuing Education Courses

Facilities

Claytor Building is a single-story, 10,000 square foot building comprised of a computer classroom, a GED lab, a tutoring area, a testing center, a bookstore, a staff lounge, administrative offices, a conference room, an admissions/registration/cashiering office, an academic counseling office, a security office, a financial aid office and faculty touchdown stations.

The Claudia Watkins Belk Center for Justice Building is a single-story, 37,000 square foot building which contains eight classrooms, a computer lab, a science lab/classroom, a forensics lab/classroom, a fitness room, a courtroom, 11 offices, a student lounge, a staff lounge, a 200-seat auditorium and a conference room. In 2005, a 2,000 square foot crime scene simulation facility was added.

The two-story, 110,000 square foot Transport Systems Technology building opened in the fall of 2006. It houses the Automotive Technology, Autobody Repair and Heavy Equipment Technology programs, a student lounge, a library, a student technology center, three computer classrooms, five general education classrooms and faculty and administrative offices. The Merancas Campus Library is in TS 243.

Dean

The dean of the Merancas Campus is Tamara Williams.

Services offered on this campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Offered Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions</td>
<td>X</td>
</tr>
<tr>
<td>Advising</td>
<td>X</td>
</tr>
<tr>
<td>Bookstore</td>
<td>X</td>
</tr>
<tr>
<td>Career Services</td>
<td>X</td>
</tr>
<tr>
<td>Cashier</td>
<td>X</td>
</tr>
<tr>
<td>CLEP Examinations</td>
<td>X</td>
</tr>
<tr>
<td>Copy Machines</td>
<td>X</td>
</tr>
<tr>
<td>Counseling</td>
<td>X</td>
</tr>
<tr>
<td>Disability Services</td>
<td>X</td>
</tr>
<tr>
<td>Financial Aid/Veterans Affairs</td>
<td>X</td>
</tr>
<tr>
<td>Fitness Center</td>
<td>X</td>
</tr>
<tr>
<td>Graduation Services</td>
<td>X</td>
</tr>
<tr>
<td>Hot Food</td>
<td>X</td>
</tr>
<tr>
<td>Library</td>
<td>X</td>
</tr>
<tr>
<td>Outreach &amp; Recruitment</td>
<td>X</td>
</tr>
<tr>
<td>Placement Testing</td>
<td>X</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>X</td>
</tr>
<tr>
<td>Registration</td>
<td>X</td>
</tr>
<tr>
<td>Student Computer Labs</td>
<td>X</td>
</tr>
<tr>
<td>Student Life</td>
<td>X</td>
</tr>
<tr>
<td>Student Records</td>
<td>X</td>
</tr>
<tr>
<td>Student Success Advisor</td>
<td>X</td>
</tr>
<tr>
<td>Student Success Center</td>
<td>X</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>X</td>
</tr>
<tr>
<td>Tour for Prospective Students</td>
<td>X</td>
</tr>
<tr>
<td>Vending Machines</td>
<td>X</td>
</tr>
</tbody>
</table>

Enrollment and Student Services Directors

The Enrollment and Student Services Directors (ESS Directors) provide campus leadership to ensure the efficient operation of Enrollment and Student Services functions on each campus. The ESS Directors coordinate student services schedules, assist with campus-wide programming and serve to assist with student disciplinary issues. Recommendations or concerns about student services at the area campuses should be directed to the ESS Directors. Area campus tours are coordinated by the ESS Directors and are given with advance notice. Future students are welcome to contact the ESS Directors for general questions about the services offered at the area campuses.

Andrea Abercrombie, ESS Director, Harris Campus
704.330.4608

Marla Harris, ESS Director, Cato Campus
704.330.4845

Gene Merklein, ESS Director, Harper Campus
704.330.4441

Michael Hughes, ESS Director, Central Campus
704.330.6547

Reggie Pincham, ESS Director, Levine Campus
704.330.4207

Tracy Moore, ESS Director, Merancas Campus
704.330.4175

For more information on the ESS Directors, visit www.cpcc.edu/ess/ess-directors.

College Policies and Procedures

CPCC has developed a series of policies and procedures to help guide students through their academic journey at CPCC.

Learn more about the College's attendance requirements, grading structure, graduation ceremony and more.

Academic Honors

Graduation Ceremony Honors

Graduation with honors designation (wearing cords at graduation ceremony) will be determined by program GPA. If a student
simultaneously graduates from two or more programs with an honors level GPA in one program and not in the other, the student will graduate with honors. If a student is eligible for honor cords in both programs, the student will wear only the cord designating the highest honor.

**President’s List**

To honor students for outstanding academic achievement, the College publishes a President’s List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:

- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299
- In a given term, have achieved a 4.0 grade point average with no “I”s or “W”s.

**Dean’s List**

To honor students for outstanding academic achievement, the College publishes a Dean’s List at the end of each term, recognizing students enrolled in curriculum programs who meet the following requirements:

- In a given term, have completed at least 12 hours of credit in courses numbered 100 through 299
- In a given term, have achieved a 3.50 or higher grade point average with no “I”s or “W”s.

**Attendance**

Absences seriously disrupt a student’s orderly progress in a course and often a close correlation exists between the number of absences and the final grade. Although an occasional absence might be unavoidable, the absence does not excuse a student from meeting the requirements of the missed class. The student is responsible for preparing all assignments for the next class and for completing work missed. Instructors are responsible for establishing appropriate course attendance requirements and for informing students of those requirements on course syllabi distributed at the beginning of the academic term.

A student who for any reason cannot complete a course must take the responsibility to formally withdraw (W) in order to avoid a failing grade. To receive a “W” grade, a student must withdraw prior to the 35 percent date of the class. Final dates for withdrawing from classes are available from class instructors. The request for official withdrawal must be processed online through MyCollege or at a registration office. Instructors are responsible for assigning an “F” if a student is not present for the last 35 percent of the class.

To ensure student success and accuracy of reporting, the College prohibits a registered student from entering (attending for the first time) a curriculum class after the 10 percent date. A program dean may make an exception in the case of a college error.

**Advanced Placement Examination Course Credit Guidelines**

<table>
<thead>
<tr>
<th>AP Examinations</th>
<th>Score Required</th>
<th>Hours Granted</th>
<th>College Courses Credited</th>
</tr>
</thead>
<tbody>
<tr>
<td>American (US) History</td>
<td>3</td>
<td>6</td>
<td>HIS 131 &amp; HIS 132</td>
</tr>
<tr>
<td>Amer Politics</td>
<td>3</td>
<td>3</td>
<td>POL 120</td>
</tr>
<tr>
<td>Art History</td>
<td>3</td>
<td>3</td>
<td>ART 111</td>
</tr>
<tr>
<td>Art Studio Drawing</td>
<td>0</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Art Studio General</td>
<td>0</td>
<td>0</td>
<td>No Credit</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>4</td>
<td>BIO 110 or BIO 111</td>
</tr>
<tr>
<td>Biology</td>
<td>5</td>
<td>8</td>
<td>BIO 111 and BIO 112</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>4</td>
<td>CHM 151</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4</td>
<td>8</td>
<td>CHM 151 and CHM 152</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>3</td>
<td>CIS 115</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>3</td>
<td>CSC 193</td>
</tr>
<tr>
<td>Economics Macro</td>
<td>3</td>
<td>3</td>
<td>ECO 252</td>
</tr>
<tr>
<td>Economics Micro</td>
<td>3</td>
<td>3</td>
<td>ECO 251</td>
</tr>
<tr>
<td>English Language</td>
<td>3</td>
<td>3</td>
<td>ENG 111</td>
</tr>
<tr>
<td>English Lit</td>
<td>3</td>
<td>3</td>
<td>ENG 241</td>
</tr>
<tr>
<td>Environmental Science</td>
<td></td>
<td></td>
<td>Do Not Offer</td>
</tr>
<tr>
<td>European History</td>
<td>(3) (6)</td>
<td></td>
<td>Do Not Offer (HIS 121, HIS 122)</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>8</td>
<td>FRE 111, FRE 181, FRE 112, FRE 182</td>
</tr>
<tr>
<td>French Lit</td>
<td>3</td>
<td>8</td>
<td>FRE 211, FRE 281, FRE 212, FRE 282</td>
</tr>
<tr>
<td>German Language</td>
<td>3</td>
<td>8</td>
<td>GER 111, GER 181, GER 112, GER 182</td>
</tr>
</tbody>
</table>

**Attendance Regulation** ([http://www.cpcc.edu/administration/policies-and-procedures/5-11-attendance-regulation](http://www.cpcc.edu/administration/policies-and-procedures/5-11-attendance-regulation)).
<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>German Lit 3, GER 211, GER 281, GER 212, GER 282</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Government (see American Pol.) Do Not Offer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp Politics 3, POL 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Human Geography 3, GEO 111</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Latin Virgil Do Not Offer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latin Catullus/ Horace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus AB 3, MAT 271</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Calculus BC 3, MAT 271 &amp; MAT 272</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Music Listening/ Lit 3, MUS 110</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory 3, MUS 121</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Physics B 3, PHY 151 and PHY 152</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Physics C Mechanics 3, PHY 251</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Physics C Electricity 3, PHY 252</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology 3, PSY 150</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Language 3, SPA 111, SPA 181, SPA 112, SPA 182</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Spanish Lit 3, SPA 211, SPA 281, SPA 212, SPA 282</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Statistics 3, MAT 155 and MAT 155A</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>World History 3, HIS 111, HIS 112</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

Students must request official advanced placement test results be sent to:

Office of Admissions
Central Piedmont Community College
PO Box 35009
Charlotte, NC 28235

**Auditing Courses**

Students who wish to audit a course must complete an Audit Agreement form, have it signed by the course instructor and submit the Audit Agreement to Registration Services at any CPCC campus within the date ranges below:

- After the first four weeks of a 16-week term (28 calendar days including the first day of the term)
- After the first two weeks of an eight-week term (14 calendar days including the first day of the term)
- After the first week of a four-week term (seven calendar days including the first day of the term)

Registration procedures and fees for an audited class are the same as those for regular and non-credit enrollment. Certain courses, however, may be designated as inappropriate for audit. Non-credit courses may not be audited without permission from the Dean of Corporate and Continuing Education. No student will be allowed to change from an audit to a credit designation or from a credit to an audit designation after the audit deadline.

The hours of an audited course will be counted as part of a student’s load and will be subject to overload restrictions. A student may audit a course only once and all those doing so must adhere to the instructor’s classroom policies. A record of the audit will be entered on the student’s transcript as “AU.” The “AU” carries no college credit and will not be converted to a letter grade. Audited courses are not covered by financial aid or veterans affairs. For more information, go to Policy 5.12 Audits, Substitutions and Waivers.

**Changing Grades**

The instructor of record is the individual authorized and responsible for personally changing grades for his/her students. In an instructor’s absence, the division director may change a grade for that instructor after consulting with him/her. In circumstances when the instructor cannot be located for an extended period of time and valid reasons exist for changing the grade, the division director is authorized to make the appropriate change. The procedures below are to be followed when a grade change is appropriate:

1. The instructor (or division director) will log into WebAdvisor, select the Faculty tab, then select Grade Change Request Form, then Grade Change Request.
2. An electronic notification will be sent to the Associate Dean of Graduation and Records or a designee, who will also electronically approve the change request and personally change the grade on the student’s electronic record. The change request will be electronically filed in Student Records.
3. Financial Aid and Veterans Affairs students should notify the Financial Aid/VA Office of any grade changes.

**Course Load Regulation**

Students registered for at least 12 hours of credit during the fall and spring terms and for at least 9 hours of credit during the summer term are considered full-time students. Students are advised that overload status may be required as a result of the following conditions and require permission:

1. Registrations that exceed 18 course hours during the fall and spring terms and over 13 hours during the summer
2. Overlapping course hours exceeding 18 hours during fall and spring terms and overlapping course hours exceeding 13 hours during the summer term

Overlapping courses are defined as those which have start and end dates within the standard term (16-week or 10-week). During the fall and spring terms, any overlapping courses totaling more than 18 hours are overload and require permission. Overlapping courses over 13 hours during summer term are overload and require permission. Students must identify the overload course(s) and then secure approval from the faculty advisor, or the appropriate program or discipline chair, division director, or instructional dean.
Students taking a full load of EFL (Academic ESL), which includes skill-based courses in composition, grammar, listening/speaking and reading for a total of 20 credit hours, are not required to obtain overload permission in order to take these four courses.

Students must obtain overload approval for 19 to 20 hours during fall and spring terms and for 14 to 15 hours during the summer term from a faculty advisor, program chair, division director, or appropriate instructional dean. The dean of the student’s program of study must approve overloads of 21 to 28 hours during fall or spring terms or 16 to 20 hours during summer term. Students are not allowed to register for more than 28 hours during fall or spring terms and 20 hours during summer term. For more information, go to Policy 5.07 Course Load (http://www.cpcc.edu/administration/policies-and-procedures/5-07-course-load).

Course Substitution

Course substitutions are permitted with the final approval of the Division Director of the academic area in which the substitution is sought. For students in A.A.S. programs, substitution requests should originate with the Advisor of the students’ active program of study. For students in College Transfer programs (A.A., A.S. and A.F.A.), requests should originate with the Advisor of the related academic area.

Substitutions are approved and applied toward specific degrees, diplomas, or certificates; therefore, it is necessary for a student to be officially enrolled in the appropriate program of study and catalog year before a substitution can be given.

Students with questions about this process may consult with their Faculty Advisor or contact Counseling and Advising Services at 704.330.5013. VA students are only approved by the North Carolina State Approving Agency for two course substitutions per program. For more information, go to Policy 5.12 Audits, Substitutions and Waivers (http://www.cpcc.edu/administration/policies-and-procedures/5-12-audits-substitutions-and-waivers).

Course Waiver

Course waivers for graduation are permitted upon the recommendation of the division director of the student’s A.A.S. program or the dean who has responsibility for the specific course in the A.A., A.S., A.G.E. and A.F.A. degrees. No credit hours will be granted. General Education requirements may not be waived for any reason. For more information, go to Policy 5.12 Audits, Substitutions and Waivers (http://www.cpcc.edu/administration/policies-and-procedures/5-12-audits-substitutions-and-waivers).

Course Credit Guidelines for Military Service

CPCC will approve academic credit for military basic training equivalent to specific physical education activity courses. Other military training that is deemed to be college level will be evaluated and academic credit may be awarded when it is considered to be the equivalent to specific course(s) in the North Carolina Community College System’s Common Course Library. Documentation of the training must be presented to Student Records in the form of the student’s original discharge papers (DD Form 214 - Member 4 copy) or an official military transcript.

College-Level Examination Program (CLEP)

Central Piedmont Community College is a national test center for administering computer-based CLEP exams. CPCC students, as well as the general public, may take CLEP exams at the Central Campus Testing Center, Central High Building, Room 248. Advance registration is required. CPCC students who perform satisfactorily on CLEP exams will receive a grade of “X.” The “X” grade carries no quality points, but credit hours will be awarded identical to the number normally assigned to that course at CPCC. Each academic department is responsible for determining the maximum amount of CLEP credit to be awarded within their respective program. CLEP credit is based on the policy used at the time the exam was completed. Students are encouraged to verify all CLEP requirements, including transferability, prior to taking a CLEP exam. CLEP fees and policies are subject to change. For additional information, or to register online, please visit www.cpcc.edu/testing_assessment, or call 704.330.6886.

Central Piedmont Community College grants CLEP credit according to the following guidelines:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Credit Granting Score</th>
<th>Credits Granted* (Sem. Hrs.)</th>
<th>Equivalent CPCC Course(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting, Financial</td>
<td>50</td>
<td>4</td>
<td>ACC 120</td>
</tr>
<tr>
<td>Algebra, College</td>
<td>50</td>
<td>3</td>
<td>MAT 161</td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>POL 120</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>6</td>
<td>ENG 231, ENG 232</td>
</tr>
<tr>
<td>Biology**</td>
<td>50</td>
<td>4</td>
<td>BIO 110</td>
</tr>
<tr>
<td>Business Law, Introductory</td>
<td>50</td>
<td>3</td>
<td>BUS 115</td>
</tr>
<tr>
<td>Calculus</td>
<td>50</td>
<td>4</td>
<td>MAT 271</td>
</tr>
<tr>
<td>Chemistry***</td>
<td>50</td>
<td>4</td>
<td>CHM 151</td>
</tr>
<tr>
<td>College Composition</td>
<td>50</td>
<td>3</td>
<td>ENG 111</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>6</td>
<td>ENG 241, ENG 242</td>
</tr>
<tr>
<td>French, Level I</td>
<td>50</td>
<td>6</td>
<td>FRE 111, FRE 112</td>
</tr>
<tr>
<td>French, Level II</td>
<td>59</td>
<td>12</td>
<td>FRE 111, FRE 112 &amp; FRE 211, FRE 212</td>
</tr>
<tr>
<td>German, Level I</td>
<td>50</td>
<td>6</td>
<td>GER 111, GER 112</td>
</tr>
<tr>
<td>German, Level II</td>
<td>60</td>
<td>12</td>
<td>GER 111, GER 112 &amp; GER 211, GER 212</td>
</tr>
<tr>
<td>History of the U.S. I: Early Colonizations to 1877</td>
<td>50</td>
<td>3</td>
<td>HIS 131</td>
</tr>
<tr>
<td>Course Title</td>
<td>Credits</td>
<td>Hrs.</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>---------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>History of the U.S. II: 1865 to the Present</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Macroeconomics, Principles of Management</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Marketing, Principles of Microeconomics</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Precalculus</td>
<td>50</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Psychology, Introductory</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Sociology, Introductory</td>
<td>50</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Spanish, Level I</td>
<td>50</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Spanish, Level II</td>
<td>63</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

* Recommended by the American Council on Education (ACE)

** Subject to satisfactory performance in any other laboratory science course at CPCC

*** Subject to completion of CHM 152 with a minimum grade of “C”

The amount of CLEP credit awarded within a specific program is determined by the appropriate department CLEP credit is based on the policy used at time exam was completed.

CLEP policy is subject to change as necessary.

CLEP examinations are administered by appointment at the Central Campus Testing Center, Central High Building, Room 248. Applicants should register online at www.cpcc.edu/testing_assessment. For additional information, please call 704.330.6737 (CLEP/CBT/6.10).

Credit by Examination

To receive credit by examination, a student must show convincing evidence of special aptitude or knowledge in the course material. A written, oral, and/or performance examination will be developed and administered by an instructor of the course. The examination is subject to the approval of the division director. If the student achieves satisfactory performance on the examination, a grade of "X" will be recorded on the transcript. The "X" grade earns no quality points, but credit hours will be given identical to the number of credit hours normally assigned to that course at Central Piedmont Community College.

For further information see policy 5.02 Credit by examination at http://www.cpcc.edu/administration/policies-and-procedures/5-02-credit-by-examination.

Grading Policy

Student Grade Point Average

Students are graded according to the following grade point system.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Point Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>Very Good</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>Poor</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>Failing</td>
</tr>
</tbody>
</table>

The following grades will not be used in computing the grade point average:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD</td>
<td>Audit</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>P</td>
<td>Passing*</td>
</tr>
<tr>
<td>R</td>
<td>Repeat*</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>W</td>
<td>Withdraw</td>
</tr>
<tr>
<td>WN</td>
<td>Withdraw/Never Attended</td>
</tr>
<tr>
<td>X</td>
<td>Credit by Examination</td>
</tr>
</tbody>
</table>

* These grades are assigned only for DMA-prefix developmental mathematics courses.

Student Attendance

Attendance may affect a student’s grade in an individual course and financial aid ability. Consult individual course syllabi for information regarding attendance as it may affect the grade in the course.

Student Grade Point Average

Students are graded according to the following grade point system.

Example:

```
MAT 175, 4 credits, Grade A = 4 points, 4 X 4 = 16
ENG 113, 3 credits, Grade D = 1 point, 3 X 1 = 3
SPA 111, 3 credits, Grade B = 3 points, 3 X 3 = 9
SPA 181 lab, 1 credit, Grade B = 3 points, 1 X 3 = 3
ACA 118, 2 credits, Grade C = 2 points, 2 X 2 = 4
Total Credits: 13 Total Points: 35
Divide 35 points by 13 credits = 2.692 GPA (Grade Point Average)
```

Three GPA’s will appear on the student’s academic record:

1. cumulative GPA
2. cumulative program GPA
3. term GPA

Grades earned under the quarter system will retain their same value in calculating the GPA. The computer converts the GPA from quarter hours to semester hours for students’ combined GPA.
Semester Credit Hours

- 16 contact hours of classroom work equals 1 semester credit hour.
- 32 or 48 contact hours of laboratory work equals 1 semester credit hour.
- 48 contact hours of clinical work equals 1 semester credit hour.
- 160 contact hours of work experience equals 1 semester credit hour.

Withdrawal

When a student determines that he/she will be unable to complete courses in which he/she is currently enrolled, it is the student’s responsibility to initiate procedures leading to a formal withdrawal (W) in order to avoid a failing (F) grade. To receive a “W” grade, a student must withdraw prior to the 35 percent date of the class. Final dates for withdrawing from a course are available from the class instructor. The instructor may also assign a “W” at other times when circumstances warrant such action. A “W” will remain on the transcript and will not count as credit hours attempted. To receive credit, a student who received a “W” must re-register and pay for the course in a subsequent term. Financial aid recipients need to refer to the financial aid satisfactory progress policy to determine if schedule adjustments will affect financial aid. In addition, financial aid students may be required to repay the US Department of Education any of their tuition/fees and/or book charges. Veterans affairs students may go into overpayment by withdrawing from any class. The last day of attendance is required to be verified for all Financial Aid/VA students.

Incomplete

An “I” (Incomplete) may be assigned when a student has persisted through the course and has completed at least 90 percent of the requirements for passing the course or when the instructor has determined extenuating circumstances exist. When an “I” is assigned, the instructor must fill out an “Incomplete Grade Form” and submit to the Division Office. A student must resolve an “I” (Incomplete) grade within the time frame specified by the instructor or the division, but no later than six months from the end of the term for which the grade was assigned. When an “I” grade has been resolved, the final grade will be recorded with the “I” (e.g., I/B) and the GPA will be recomputed. An “I” which is unresolved will be changed to the grade of “IF” after the specified expiration date. For veterans affairs students, the last day of attendance must be verified for any incomplete grades.

Standards of Academic Progress

Academic Warning

Students who are enrolled in a program and whose term GPA falls below 2.0 will be placed on Academic Warning. Students placed on Academic Warning will be blocked from registering until they contact their faculty advisor or other designated individual. If the GPA does improve at the end of the next term, the student is placed back into good standing.

Academic Probation

Students are placed on Academic Probation if their term GPA does not improve by the end of the next semester. Students must contact their faculty advisors and will not be able to register until grades are posted. While on Academic Probation, students will be limited to registering for the number of courses approved by their faculty advisors. If their GPA does not improve by the end of the term of probation, students are placed on Academic Suspension.

Academic Suspension

Students who do not raise their term GPA to the required level within the next enrolled term, the third term of not meeting Standards of Progress, will be placed on First Academic Suspension. While on First Academic Suspension, students are referred for academic advisement to a student counselor who will work with the student to develop an academic course of action. If students fail to make appropriate progress during this term on First Academic Suspension, they will be placed on Final Suspension and suspended from enrolling in any curricular classes at CPCC for one term. However, during that term, students have the option to take developmental classes, ESL, Career Development, Continuing Education classes, or no classes.

Students who raise their GPA the next term following any of the above interventions are returned to good standing. Following Academic Suspension, however, the student must see a counselor to have the registration block removed before registering for the next term. For more information, go to Policy 5.10 Grading Policy (http://www.cpcc.edu/administration/policies-and-procedures/5-10-grading-policy).

Readmission from Suspension

When the student returns after the term of suspension, he or she continues to be advised by the student counselor. If, at the end of the term following suspension, the student’s term GPA meets the Standards of Progress, he or she is returned to good standing and a faculty advisor in the program of study. For more information, go to Policy 5.10 Grading Policy.

Graduation

The CPCC Graduation Office awards degrees, diplomas, certificates and Adult High School diplomas to eligible students. In order to receive a credential, potential graduates must first submit the appropriate graduation application according to the following dates:

<table>
<thead>
<tr>
<th>Potential Graduates</th>
<th>Begin Submitting Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>January 1</td>
</tr>
<tr>
<td>Summer</td>
<td>May 1</td>
</tr>
<tr>
<td>Fall</td>
<td>August 1</td>
</tr>
</tbody>
</table>

There is no application deadline; however, spring applications submitted by March 1 are guaranteed processing in time to participate in the graduation ceremony.

Graduation Process for Degrees & Diplomas

(Students pursuing the Cytotechnology certificate should also follow this process.)

- **Meet with your Advisor** – Students should meet with their advisor prior to applying for graduation. They will check that all transcripts have been received, that you have been admitted to the appropriate program and catalog, that any course substitutions and waivers have been submitted and that you have a course of study for the remainder of your program.
- **Submit a Graduation Application** – Potential graduates should submit a Graduation Application to the Graduation Office during the time frame published. Applications should be submitted online through your MyCollege account.
• Receive a Degree Audit Evaluation – A Graduation Analyst will review your records and email you a degree audit evaluation approximately eight weeks after your application is submitted. These evaluations cannot be completed at the time the application is submitted.

• Meet with Graduation Analyst – Toward the end of your final term, you may be asked to schedule an appointment with your Graduation Analyst to review your records. If you are eligible, you will be given permission to order your degree or diploma.

• Receive a copy of your Degree or Diploma - After completion of all requirements, including successful completion of the final courses required for graduation, a notation of the degree/diploma and the date of graduation is entered on the student’s CPCC transcript. If ordered, the degree/diploma will be mailed to the student approximately eight weeks after graduation. The student’s date of graduation will be the term when all documents needed for graduation certification are complete.

Graduation Process for Certificates

• Meet with your Advisor – Students should meet with their advisor prior to applying for graduation. They will check that you have been admitted to the appropriate program and catalog, that any course substitutions and waivers have been submitted and that you have a course of study for the remainder of your program.

• Submit a Certificate Completion Form – Students should submit a Certificate Completion Form during the timeframe published. This form may be submitted online through their MyCollege account (if the student is admitted to the program.) These forms are also available online through MyCollege, in the Graduation Office on Central Campus (Central High 120), or on the Graduation Office website.

• Receive a Certificate Audit Evaluation – A Graduation Analyst will review your records and email you a degree audit evaluation approximately eight weeks after your application is submitted. These evaluations cannot be completed at the time the application is submitted.

• Receive your Certificate - After completion of all requirements, including successful completion of the final courses required for graduation, a notation of the certificate and the date of graduation is entered on the student’s CPCC transcript. One free copy of the certificate will be mailed to the student approximately eight weeks after completion. The student’s date of graduation will be the term when all documents needed for graduation certification are complete and on file. Additional copies of certificates may be purchased for a small fee.

Graduation Process for Adult High School Diplomas

• Meet with your Advisor – Students should meet with their advisor prior to applying for graduation. The advisor will review the education plan and determine a term of graduation.

• Submit a Graduation Application – Students should submit an application during the timeframe published. Applications are available online through MyCollege, in the Graduation Office on Central Campus (Central High 120), in the Adult High School Office, or on the Graduation Office website.

• Receive Update from Graduation Office – A graduation analyst will audit your records and notify you of your status by mail. These evaluations cannot be completed at the time the application is submitted.

• Meet with Graduation Analyst – Toward the end of your final term, you may be asked to schedule an appointment with your graduation analyst to review your records. If you are eligible, you will be given permission to order your diploma.

• Receive your Diploma - After completion of all requirements, including successful completion of the final courses required for graduation, a notation of the Adult High School Diploma and the date of graduation is entered on the student’s CPCC transcript. The student’s date of graduation will be the term when all documents needed for graduation certification are complete and on file. If ordered, the diploma will be mailed to the student approximately eight weeks after graduation. Please note: A minimum of 1 Adult High School credit hour must be earned at Central Piedmont Community College to be awarded the Adult High School Diploma.

Please note the following

Program requirements: The College reserves the option of changing the requirements for completing a degree, diploma, or certificate program at any time.

Returning students:

• When a student is not enrolled in program-related courses for three or more consecutive semesters, the requirements for program completion will be based on those requirements in effect when the student reenrolls in the program, not on those in effect when the student originally entered the program.

• An official copy of the student’s high school transcript must be on file in order to be admitted to a degree or diploma program.

• Exceptions to course requirements and catalog year changes (beginning Fall 1997) can be made upon approval of the division director. Sometimes such exceptions must be made because courses in an earlier curriculum program may no longer be offered. Students will not be placed in a catalog year prior to the 1997-1998 year.

GPA: A student must have a program GPA of 2.0 or better to receive a degree, diploma or a certificate. Some programs may require a grade of “C” or better.

Credentials: An official high school transcript or equivalent must be on file, showing the date of graduation prior to certification of certificates, diplomas, and degrees.

Residence: A student must meet the Curriculum Program Residency requirements of the College.

Degrees: A minimum of 21 program hours must be earned at Central Piedmont Community College.

College Diplomas: A minimum of 12 program hours must be earned at Central Piedmont Community College.

Certificates: A minimum of thirty percent (30%) of program credits must be earned at Central Piedmont Community College.

For more information on policies governing graduation, please see Policy 5.13 Program Completion Requirements (http://www.cpcc.edu/administration/policies-and-procedures/5-13-program-completion-regulations).
### International Baccalaureate Course Credit Guidelines

<table>
<thead>
<tr>
<th>IB Exam</th>
<th>Score of 4</th>
<th>Score of 5</th>
<th>Score of 6 or 7</th>
<th>Cr. Hrs</th>
<th>CPCC Courses</th>
<th>Cr. Hrs</th>
<th>CPCC Courses</th>
<th>Cr. Hrs</th>
<th>CPCC Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English HL</td>
<td>No Credit</td>
<td>6</td>
<td>ENG 111, ENG 113</td>
<td></td>
<td>ENG 111, ENG 113</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Studies SL</td>
<td>No Credit</td>
<td>3</td>
<td>MAT 165*</td>
<td>4</td>
<td>MAT 165*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Studies SL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological HL</td>
<td>No Credit</td>
<td>4</td>
<td>MAT 271</td>
<td>4</td>
<td>MAT 271</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry HL</td>
<td>No Credit</td>
<td>8</td>
<td>CHM 151, CHM 152</td>
<td></td>
<td>CHM 151, CHM 152</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geography HL</td>
<td>No Credit</td>
<td>3</td>
<td>GEO 111</td>
<td>3</td>
<td>GEO 111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Americas HL</td>
<td>No Credit</td>
<td>6</td>
<td>HIS 131, HIS 132</td>
<td></td>
<td>HIS 131, HIS 132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twentieth Century World</td>
<td>No Credit</td>
<td>3</td>
<td>HIS 165</td>
<td>3</td>
<td>HIS 165</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French HL</td>
<td>4</td>
<td>FRE 112, FRE 182</td>
<td>FRE 112, FRE 182, FRE 211, FRE 281, FRE 281</td>
<td>12</td>
<td>FRE 112, FRE 182, FRE 211, FRE 281, FRE 281, FRE 282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>German HL</td>
<td>4</td>
<td>GER 112, GER 182</td>
<td>GER 112, GER 182, GER 211, GER 281</td>
<td>12</td>
<td>GER 112, GER 182, GER 211, GER 281, GER 281, GER 282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish HL</td>
<td>4</td>
<td>SPA 112, SPA 182</td>
<td>SPA 112, SPA 182, SPA 211, SPA 281</td>
<td>12</td>
<td>SPA 112, SPA 182, SPA 211, SPA 281, SPA 281, SPA 282, SPA 282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics HL</td>
<td>No Credit</td>
<td>6</td>
<td>ECO 251, ECO 252</td>
<td></td>
<td>ECO 251, ECO 252</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Computer Studies          | No Credit  | 4          | CSC 120       | 4      | CSC 120      |        |              |        |              |
| Art & Design              | No Credit  | No Credit  | No Credit     | No Credit | No Credit |        |              |        |              |
| Psychology                | No Credit  | 3          | PSY 150       | 3      | PSY 150      |        |              |        |              |

* MAT165 Finite Math-in Common Course Library, not currently taught at CPCC

### Repeating Courses

#### Curriculum Courses

In an effort to earn a higher grade and/or to enhance mastery of course content, students may repeat any curriculum course. Students may not enroll in the same course more than three times without approval of the appropriate division director, discipline chair, or program chair. If students need additional advisement, the division director will refer them to Counseling and Advisement Services. A withdrawal does not count as a repeat.

When a course has been repeated, the higher grade will be used to recalculate the Grade Point Average (GPA). However, all grades will be recorded on the student's academic transcript. In addition, students who have received a degree from CPCC should be advised that a final student GPA is computed at the time of graduation and this GPA may not be recalculated as courses are repeated. Furthermore, transfer students should be advised that receiving institutions do not have consistent policies regarding GPA computation.

Students who receive veteran’s benefits should be aware that they will not receive benefits for previously completed courses (as determined by the appropriate division). For all financial aid recipients, repeated courses will be counted toward the 150 percent timeframe. When students repeat courses, the repeated course is included in (a) enrollment status (full, 3/4, 1/2, or less than 1/2 time) computations; (b) financial aid awards; (c) 150 percent calculations; and (d) GPA calculations.

### Continuing Education Courses

Effective July 1, 1993, students who take an occupational extension course more than twice within a five-year period will be charged the full cost of the course.

Senior citizens who are (65 years & older) legal residents of North Carolina and who wish to enroll in an occupational extension course will not be required to pay for taking the course twice. Senior citizens who take an occupational extension course more than twice within a five-year period must pay for the cost of the course.

Students may repeat occupational extension courses more than once if the repetitions are required for certification, licensure, or recertification. Self-supporting classes (Corporate and Continuing Education for example) may be repeated any number of times.

### Student Academic Integrity Policy

The purpose of the CPCC Code of Student Academic Integrity (see CPCC Student Handbook) is to support the continued growth and development of a strong academic community based on the principles of academic honesty and integrity.
Although the commitment to maintaining and enforcing high standards of academic honesty and integrity at Central Piedmont Community College rests with all members of the College community, faculty members, in particular, are charged with taking measures to preserve, transmit and model those standards through example in their own academic pursuits and in the learning environment which they create for their students. Students, likewise, as members of the College’s academic community, are obligated to take an active role in the preservation of the standards of academic honesty and integrity, encouraging others to respect those standards. It is the expectation of the College that students maintain absolute integrity and high standards of individual honor in their academic work. Conduct that violates the standards of academic honesty and integrity and is subject to disciplinary action may include, but is not limited to, cheating, fabrication and falsification, plagiarism, abuse of academic materials, installation of a computer virus and complicity in academic dishonesty. Any student who violates the CPCC Code of Student Academic Integrity is subject to academic disciplinary action. Such action may include, but is not limited to, entry of the incident in student conduct records, reduced grades, and dismissal from College classes, programs and activities.

**Student Code of Conduct**

The College reserves the right to maintain a safe and orderly educational environment for students and staff. Therefore, when in the judgment of College officials, a student’s conduct disrupts or threatens to disrupt the College community, appropriate disciplinary action will be taken to restore and protect the well being of the community.

Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and morality. The purpose of the Student Code of Conduct (the complete policy and procedures are located through the College website at www.cpcc.edu) is not to restrict student rights but to protect the rights of individuals in their academic pursuits.

College Security Officers and employees have the authority to take immediate actions and begin disciplinary proceedings in response to violations of the Student Code of Conduct.

Students should note that the possession, consumption, or distribution of alcohol or illegal drugs, or possession of weapons on campuses or any other CPCC instructional site is specifically prohibited and regulated by state statute. Violators will be prosecuted by the authorities. For more information, go to Policy 7.00 Conduct of Students (http://www.cpcc.edu/administration/policies-and-procedures/7.00-conduct-of-students).

**Student Grievance Procedure**

**Definition**

A grievance is a student allegation that a College action or decision is discriminatory or has a negative effect on the student’s status at the College.

**Regulation**

Any student may request a review of any College decision or action alleged to be discriminatory or to have a negative effect on the student’s status at Central Piedmont Community College. If the grievance concerns a course grade, then the student should follow the steps in section V.

**Procedure**

1. The student shall first informally discuss the matter in question with the College employee most directly involved unless the issue is a claim of discriminatory harassment (as defined in Policy 7.13 (http://www.cpcc.edu/administration/policies-and-procedures/7-13-discrimination-and-harassment)). In that case, the student may appeal directly to the employee’s immediate administrator or CPCC’s Director of Equal Opportunity.

2. If the student is unable to resolve the matter in question through discussion with the College employee directly involved, the student may file an appeal with the employee’s immediate administrator. All such appeals shall be in writing and state the basic facts in the case.

3. During the grievance process a student may seek mediation after he/she has discussed the grievance with the College employee most closely involved in the dispute and with that employee’s immediate administrator. See Policy 7.15 Student Mediation (http://www.cpcc.edu/administration/policies-and-procedures/7-15-student-mediation-program).

4. If the matter is not resolved, the appeal may be processed through the employee’s supervising administrators in succession until a satisfactory resolution is obtained or until the appeal reaches the President. The President’s decision will be final.

5. A student may at any stage of the process consult with the Dean of Student Life and Service-Learning to obtain advice regarding the grievance procedure.

**Timeliness**

A grievance must be presented within 30 days after the action or decision being questioned. Processing at each step cannot exceed 30 working days; however, the time may be extended by agreement of both parties or by extenuating circumstances as decided by the administrator to whom the grievance is presented. If the administrator at each step does not meet processing time limitations, the grievant may then request higher administrative assistance in obtaining requested relief. If the grievant does not meet the stated time limitations, the process will be terminated and such grievance cannot be resubmitted.

**Course Grade Appeals Procedure**

A part of faculty responsibility at Central Piedmont Community College is the assignment of student course grades according to methods, which are professionally acceptable, communicated to everyone in the class and applied to all students equally.

Any student who contests a course grade should attempt first to resolve the matter with the faculty member who assigned the grade. Failing to reach a satisfactory resolution, the student may appeal the course grade in accordance with the procedure outlined below. While a grade is being appealed, a student is obligated to abide by the written division policies concerning continuation in programs or continuation in courses with prerequisites.

1. The student must consult initially with the faculty member who assigned the course grade.

2. Students may seek mediation during the Course Grade Appeals Procedure after they have discussed the grade in question with the faculty member who assigned the grade, but prior to presenting the Grade Appeal form to the division director as described in V. C. below. If the matter is not resolved through discussion with the faculty member, the student may request mediation.
3. If the conference between the student and the faculty member does not resolve the matter, then the student must complete and submit the Grade Appeal Form to the division director where the contested course grade was awarded. This written appeal must be filed within 30 calendar days after the grade has been posted and cannot be appealed beyond this period. The written appeal will become the document of record. The 30-day period will be extended if mediation is a part of the process.

4. The division director will then confer with the student and the faculty member to seek resolution by mutual agreement within 10 working days. When appropriate, the program chair/Coordinator in which the course grade was assigned will be involved in this conference.

5. Failing such resolution, the student may contact the appropriate instructional dean for an appointment. The dean will request all documentation, including the Student Grade Appeal Form from the division director prior to meeting with the student. Within 10 working days after receiving the documentation, the dean will confer with the student, faculty member, division director and when appropriate, program chair coordinators. Based on these discussions, the dean will either render a decision or convene the Grade Appeal Committee.

6. If the dean renders a decision, he/she will communicate that decision in writing to the student, the faculty member, the program chair/Coordinator and the division director within five working days. If the grade is to be changed, the dean will change the grade within five working days. The dean’s decision will be final.

7. If the dean determines that further evaluation of the student’s work is warranted, the dean will convene a Grade Appeal Committee within 10 working days. This committee will consist of the convening dean and three faculty members. The College Senate will appoint one member. The student will select one member and the instructor who assigned the contested grade will select one member. The faculty member who assigned the grade, the student, the division director and when appropriate, the program chair/Coordinator will be present at the meeting. The student may bring one guest. The student and faculty member will be given an opportunity to address the committee and to answer questions. The student’s guest, the division director and the program chair may not address the committee. The three faculty members will vote to affirm the grade or to change the grade. The committee’s decision will be final. The dean will communicate the committee’s decision in writing to the student, the division director, program chair and the faculty member who assigned the grade within five working days. If the grade is to be changed, the dean will change the grade within five working days.

8. If the dean changes the grade, the College will assist the student in resuming studies at the College. For more information, go to Policy 7.09 Grievance Process for Students (http://www.cpc.edu/administration/policies-and-procedures/7-09-grievance-process-for-students).

### Student Records (Transcripts)

The College maintains the position that students' records are their own property; therefore, this information, with certain exceptions defined below, is released only when a student signs a Student Information Release Authorization Form in the Student Records Office. Students may have copies of their transcripts sent to any institutions or individuals they choose and may also order copies for their own use. A $5 fee is required for each official transcript requested. Transcripts are not released if the student owes money to the College. Transcripts may be ordered online through a student’s MyCollege account, in person in the Student Records Office, or at the Admissions, Registration and Records desk at any campus.

### Policies and Procedures

Central Piedmont Community College, in fulfilling its responsibilities to students, must maintain accurate and confidential student records. The College staff recognizes the rights of students to have access to their academic and personal records in accord with existing College policy and the Family Educational Rights and Privacy Act of 1974 (Buckley Amendment).

### Definition of Term “Educational Records”

Education records, as defined under the provisions of the Family Educational Rights and Privacy Act of 1974, include files, documents and other materials which contain information directly related to students and which are maintained by an educational institution or by an authority on behalf of the institution. The term educational record, under the provisions of the law, does not include the following:

1. Records of institutional, supervisory and administrative personnel which are in the sole possession of the maker and which are not accessible or revealed to any other person except a substitute for the above named personnel
2. Records and documents of Security Officers of the institution which are kept apart from such educational records
3. Records on students which are made or maintained by a physician, psychiatrist, psychologist, counselor, or other recognized professional or paraprofessional acting in their official capacity and which are made, maintained, or used only in connection with a provision for treatment for the student and are not available to anyone other than the persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of a given student’s choice
4. Financial records of the parents of the students or other information therein contained
5. Confidential recommendations if a given student has signed a waiver of the student’s rights of access, provided such a waiver may not be required of the student
6. Confidential letters or statements of recommendation which were placed in educational records prior to January 1, 1975, if such records are not used for purposes other than those for which they were specifically intended
7. Medical records, physical examination results, reasonable accommodation request forms, or other medical information which are required to be kept apart from general educational records and treated as confidential in accordance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act

### Control Provisions on Student Records and Student Information

1. Transcripts and other educational records information are released only with written permission of the student. When information other than the transcript is released from the student’s official record (Student Records Office), the student will receive a copy of the release.
2. Students have the right to inspect their own records whether recorded in hard copy form or recorded in the form of magnetic disks and microfilm. Upon inspection, students are entitled to an explanation of any information contained in their records.

3. The official student file will not be sent outside the Counseling Office, Student Records Office, Admissions and Registration Services, Graduation Office, Financial Aid Office, Veteran and Military Affairs Office, or other custodial offices except in circumstances specifically authorized by the Associate Dean of Graduation and Records. The authorization for such special circumstances must be in writing.

4. All medical records, physical examination results, reasonable accommodation request forms, or other medical information must be collected on separate forms, maintained in separate medical files kept apart from a student’s general educational records and treated as confidential. Disclosure of such information may only be made at the express, written consent of the student to the following:
   a. Administrators, Department Heads and others involved in a request for reasonable accommodation or evaluation of qualifications for or performance in a course, program, service or activity
   b. Department Heads and instructors for purposes of implementing and enforcing necessary restrictions and accommodations
   c. First aid and safety personnel if a known disability may require emergency treatment

**Release of Student’s Educational Records**

1. Such requests for protected information shall not be honored without proper written consent by the student via a Student Information Release Authorization Form for the release of such records by the student except under conditions indicated in paragraphs 2 and 5 below.
   a. The written consent must specify the records or the specific data to be released, to whom they are to be released and the reasons for release.
   b. Each request for consent must be specific and each request must be handled separately.

2. Request for confidential information will be honored without prior consent of the student in connection with an emergency, if the knowledge of such information by appropriate persons is necessary (in view of a reasonable College Policies and Procedures person) to protect the health or safety of the student or other persons. However, such a release shall have the approval of a Cabinet Officer unless it can be shown that, under the circumstances, time would not permit or that no Cabinet Officer was available.

3. The following “Directory Information” may be made available to the public by the College unless students notify the Associate Dean of Graduation and Records in writing, by the third week of the semester, that such information concerning themselves is not to be made available:
   a. Student’s name and hometown
   b. Major field of study or program
   c. Dates of attendance, degrees, diplomas or awards
   d. The most recent previous educational institution attended
   e. Place of birth - Requests for non-disclosure will be honored by the College for only one academic semester at a time; therefore, requests to withhold Directory Information must be filed each term

4. Information other than “Directory Information” - Any release of student information for public use or use by the media except that designated above (paragraph 3) must have prior written approval by the students involved.

5. Disclosure to Government Agencies - Properly identified and authorized representatives of or bona fide written requests from the Comptroller General of the United States, the Department of Education, the Attorney General of the United States, as well as state and local educational authorities may have access to student or other records in connection with the audit and evaluation of federal or state supported educational programs, in connection with the enforcement of the federal or legal requirements related to such programs or for the purpose of military recruiting (Solomon Amendment). Routine requests for student data from such agencies as DEO, OEO, research agencies and state reporting agencies may be honored without prior approval of the student only in formats where students are not identified.

6. Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to view student data for a particular student.

7. Confidential information requested by other than federal or state agencies as specified in paragraph 5 above will be released only under the following conditions:
   a. An official order of a court of competent jurisdiction
   b. Subpoena (Students will be notified immediately by registered mail that their records are being subpoenaed)

**Students’ Rights to Question Content of Their Official Student Files**

1. Students have the right to review their official records maintained by the College. Furthermore, students may question any inaccurate or misleading information and request correction or deletion of such data from their files.

2. All such requests will be sent to the Associate Dean of Graduation and Records and will become a part of that student’s file.

3. All requests for correction of a student file will be acted upon within 45 work days of receipt of the request. If the custodian can verify that such data are, in fact, in error, appropriate corrections will be made and the student will be notified in writing when the correction has been completed. If an error cannot be readily substantiated, the request will be referred to an Ad Hoc Hearing Committee appointed by the Vice President for Enrollment and Student Services. After a student has had the opportunity to present the case to the hearing committee, the committee will render a decision in writing stating the reasons for its decision. If the decision is in agreement with the student’s request, the student will be permitted to review the file to verify that the change has been made correctly. If the student’s request is denied, the student will be permitted to append a statement to the record in question, showing the basis for the disagreement with the denial. Such additions will become a permanent part of the record.

**Annual Notice to Students of Their Rights Under Family Educational Rights and Privacy Act of 1974**

The College policy on access to and release of student information will be made available to students, faculty and staff. This information is available in the online Student Handbook and in this catalog. For more information,
Transcript Evaluation Process

US Institutions

Request previously attended institutions to send official Transcript(s) to CPCC at:

Student Records
CPCC
P.O. Box 35009
Charlotte, NC 28235-5009

After you verify your official transcript has been received, complete a Request for Transcript Evaluation Form by logging in to MyCollege.cpcc.edu and selecting Transcript Evaluation Request from the Academic Profile menu. Previous courses completed with a “C” or higher grade from regionally accredited institutions and which match CPCC courses are transferable. You will be notified by email when your evaluation has been completed. You may see the courses that were transferred by logging into MyCollege and selecting Transcript from the Academic Profile menu. Make sure Curriculum Transcript is highlighted, and then submit.

International Institutions

Students are advised to submit their record of courses to an agency recognized by NACES (National Association of Credential Evaluating Services; www.naces.org) for an international evaluation. A letter grade (“A,” “B” or “C”) and earned credit hours must be provided for each course. Course equivalencies based on terms such as “Pass” or “Satisfactory” are not acceptable.

You may request your CPCC evaluation after your official international evaluation report has been received by:

Student Records
CPCC
P.O. Box 35009
Charlotte, NC 28235-5009

After you verify your international evaluation has been received, complete a Request for Transcript Evaluation Form by logging in to MyCollege.cpcc.edu and selecting Transcript Evaluation Request from the Academic Profile menu. Previous courses completed with a “C” or higher grade from regionally accredited institutions and which match CPCC courses are transferable. You will be notified by email when your evaluation has been completed. You may see the courses that were transferred by logging into MyCollege and selecting Transcript from the Academic Profile menu. Make sure Curriculum Transcript is highlighted, and then submit.

Note: In most cases, students are not required to wait until their evaluation is completed in order to register for classes. When prerequisite permissions are necessary, student counselors, academic advisors, faculty advisors and division directors can review students’ transcripts to verify successful completion of the required prerequisite course(s) and grant course permission. This is not a substitution for an official evaluation; students should submit their written requests for evaluation as soon as their transcripts are received by Student Records at CPCC.

Accreditations and Memberships

Central Piedmont Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate degrees, diplomas, and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call 404.679.4500, or see http://www.sacscoc.org for questions about the accreditation of Central Piedmont Community College. Inquiries regarding the programs and services of Central Piedmont Community College should be directed to the College; the Commission on Colleges should be contacted only for questions relating to the College’s accreditation.

The College is also accredited and approved by the following organizations:

• American Bar Association Approved
  • Paralegal Technology Program
• American Culinary Federation Foundation Accrediting Commission
  • Culinary Arts
  • Baking and Pastry Arts
• American Heart Association
  • Cardiopulmonary Resuscitation
  • Advanced Cardiac Life Support
  • Pediatric Advanced Life Support
• American Welding Society – Accredited Welder Test Facility
• Association of Nutrition & Foodservice Professionals (ANFP); www.anfponline (http://www.anfponline.org); 800.323.1908
  • Certified Dietary Managers (CDM)
• Certified Food Protection Professionals (CFPP) CFP® Board of Standards, Inc.
• Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM); www.cahiim.org (http://www.cahiim.org)
  • Health Information Technology
• Commission on Accreditation for Respiratory Care, (COARC) 1248 Harwood Rd., Bedford, TX 76021; http://www.coarc.com; 817.283.2835
  • Respiratory Therapy
• Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), The Commission on Accreditation in Physical Therapy Education, Department of Accreditation, APTA, 1111 North Fairfax Street, Alexandria, VA 22314; www.apta.org/CAPTE; 703.706.3245
  • Physical Therapist Assisting
• Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Accreditation Review Committee on Surgical Technology and Surgical Assisting (ARC/STSA), ARC/STSA, 6 W. Dry Creek Circle, Suite #110, Littleton, CO 80120; http://www.caahep.org; 303.694.9262
  • Surgical Technology
• Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Cytotechnology Programs Review Committee (CPRC) of the American Society of Cytopathology (ASC), CAAHEP, 1361 Park Street, Clearwater, FL 33756; www.caahep.org (http://www.caahep.org); 727.210.2350
  • Cytotechnology
Central Piedmont Community College

• Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT) at the associate degree level in the Non-Invasive Cardiology (Adult Echocardiography) concentration and the Invasive Cardiology (Invasive Cardiovascular Technology) concentration, CAAHEP, 1361 Park Street, Clearwater, FL 33756; www.caahep.org (http://www.caahep.org); 727.210.2350
  • Non-Invasive Cardiology (Adult Echocardiography)
  • Invasive Cardiology (Invasive Cardiovascular Technology)
• Commission on Dental Accreditation (CODA), American Dental Association (ADA)
  • Dental Hygiene
  • Dental Assisting
• Engineering Technology Accreditation Commission of ABET, http://www.abet.org
  • Civil Engineering Technology
  • Computer Engineering Technology
  • Electrical Engineering Technology
  • Electronics Engineering Technology
  • Mechanical Engineering Technology
• National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Rd., Suite 720, Rosemont, IL 60018-5119; www.naacls.org (http://www.naacls.org); 847.939.3597/773.714.8880
  • Medical Laboratory Technology
• National Association for the Education of Young Children
  • Early Childhood Education Associate Degree Program
• National Automotive Technician Education Foundation
  • Automotive Technology
  • BMW-Associate Degree Program
  • General Motors Automotive Service Educational Program
• National Center for Construction Education and Research Accredited Training and Education Facility
• Nationwide Mortgage Licensing System
• North American Board of Certified Energy Practitioners
• North Carolina Appraisal Board
• North Carolina Bar Certified
  • Paralegal Technology Program
• North Carolina Commissioner of Banks
• North Carolina Criminal Justice Education and Training Standards Commission
  • Basic Law Enforcement Training Technology
  • Criminal Justice Technology
  • General Instructor Training
  • Lidar Certification/Recertification
  • Radar Certification/Recertification
  • Time/Distance Certification/Recertification
• North Carolina Department of Health and Human Services, Division of Health Service Regulation, Center for Aide Regulation and Education (CARE)
  • Nurse Aide
• North Carolina Department of Insurance
• North Carolina Fire and Rescue Commission
• Firefighter Training
• North Carolina Office of Emergency Medical Services (NCOEMS)
• Emergency Medical Technician
• Paramedic
• North Carolina Real Estate Commission
• North Carolina State Board of Nursing
• Christa A. Overcash Associate Degree Nursing Program
• The Medical Assisting Diploma Program at Central Piedmont Community College Central Campus is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756 727.210.2350; www.caahep.org (http://www.caahep.org)

Charlotte Area Education Consortium

CPCC is a member of the Charlotte Area Educational Consortium (CAEC). Among several CAEC activities is a cross-registration program that enables students to take certain courses not offered at CPCC at other Consortium schools. For information, call 704.330.6495. CAEC colleges and universities are:

Belmont Abbey College, Belmont, NC
Cabarrus College of Health Sciences, Concord, NC
Carolinas College of Health Sciences, Charlotte, NC
Catawba College, Salisbury, NC
Catawba Valley Community College, Hickory, NC
Central Piedmont Community College, Charlotte, NC
Cleveland Community College, Shelby, NC
Davidson College, Davidson, NC
Gardner-Webb University, Boiling Springs, NC
Gaston College, Dallas, NC
Gordon-Conwell Theological Seminary, Charlotte, NC
Johnson C. Smith University, Charlotte, NC
Lenoir-Rhyne College, Hickory, NC
Livingstone College, Salisbury, NC
Mitchell Community College, Statesville, NC
Pfeiffer University, Charlotte, NC
Queens University of Charlotte, Charlotte, NC
South Piedmont Community College, Polkton, NC
University of North Carolina at Charlotte, Charlotte, NC
University of South Carolina at Lancaster, Lancaster, SC
Wingate University, Wingate, NC
Winthrop University, Rock Hill, SC
York Technical College, Rock Hill, SC

Memberships

Central Piedmont Community College is a member of the following educational associations and agencies:

AIGA, the Professional Association for Design
American Association for Paralegal Education
American Association for Sustainability in Higher Education
American Association for Women in Community Colleges
American Association of Collegiate Registrars and Admissions Officers
American Association of Community Colleges
American Association of Paralegal Education
American Culinary Federation
American Heart Association
American Institute of Architecture Students
American Marketing Association
American Payroll Association

29
American Pharmaceutical Association
American Sign Language Teachers Association
American Society for Nondestructive Testing
American Society of Mechanical Engineers
American Welding Society
Association for Information Communications Technology Professionals in Higher Education
Association for Institutional Research
Association of Accountants and Financial Professionals in Business
Association of America’s Public Television Stations
Association of Builders and Contractors
Association of College & University Auditors
Association of College and University Printers
Association of Collegiate Schools of Architecture
Association of Community College Facility Operations
Association of Community College Trustees
Association of Nutrition and Foodservice Professionals
Association of Surgical Technologists
Association on Higher Education and Disability
Blackboard Analytics Client Advisory Board
Campus Safety Health and Environmental Management Association
Carolina Associated General Contractors
Carolina Clinical Education Consortium
Carolinian Association of Collegiate Registrars and Admissions Officers
Carolinian Association of Government Purchasing
Carolinian Home Improvement Professionals
Carolinian Minority Supplier Development Council
Carolina’s Nuclear Cluster
Center for Energy Workforce Development
Center for Global Advancement of Community Colleges
Charlotte Area Compensation Council, Inc.
Charlotte Area Education Consortium
Charlotte Area Liaison Group
Charlotte Chamber of Commerce
Charlotte Chapter of the American Payroll Association
Charlotte Maintenance Council
Charlotte Regional Workforce Development Partnership
Cisco Networking Academy
Collaborative Services Working Group
College and University Professional Association for Human Resources
College Board, The
College News Association of the Carolinas
COMBASE
Community College Business Officers
Community College Planning and Research Organization
Community Colleges for International Development, Inc.
Conference of Interpreter Training, The
Cooperative Education and Internship Association
Council for Advancement and Support of Education
Council for Resource Development
Culinary Hospitality Tourism Educators Alliance
Diversity Council of the Carolinas
Early Music America
Economic Research Institute
EDUCAUSE
Educause Southeast Regional Board
Ellucian User’s Group
Emergency Care and Safety Institute
Enactus
Federated Identity Management North Carolina Committee
Financial Planning Association
Flexographic Technical Association
Google Advisory Board – Educational Clients
Google Apps for Education User Group Leadership
Hospitality Tourism Alliance
In-Plant Printing and Mailing Association
Institute of Electrical and Electronic Engineers–Computer Society
International Association of Administrative Professionals
International Association of Campus Law Enforcement Administrators
Lake Norman Chamber of Commerce
Latin American Chamber of Commerce
League for Innovation in the Community College
Learning Resources Network
Manufacturing Institute
Matthews Chamber of Commerce
Metrolina Association of Volunteer Administrators
Metrolina Theatre Association
Microsoft IT Academy
Mu Alpha Theta
NAFSA-Association of International Educators
National Academic Advising Association
National Association for College Admission Counseling
National Association for Community College Entrepreneurship
National Association for the Education of Young Children
National Association of Broadcasters
National Association of College and University Business Officers
National Association of College Auxiliary Services
National Association of Colleges and Employers
National Association of Educational Procurement
National Association of Student Financial Aid Administrators
National Association of Student Personnel Administrators
National Association of the Remodeling Industry
National Association of Veterans Administrators
National Center for Construction Education and Research
National Center for Women & Information Technology Academic Alliance
National Coalition of Advanced Technology Centers
National Community College Council for Research and Planning
National Conference of Continuing Education and Training
National Council for Continuing Education and Training
National Council for Marketing and Public Relations
National council for Workforce Education
National Direct Student Loan Coalition
National Educational Television Association
National Institute for Staff and Organizational Development
National Institute of Metal Working Skills
National League for Nursing
National Organization for Associate Degree Nursing
National Organization for Family Support
National Partnership for Fostering Careers in Law, Public Safety,
Corrections and Security
National Registry of Interpreters for the Deaf
National Restaurant Association
National Student Employment Association
National Technical Honor Society
New Media Consortium
North American Council of Automotive Teachers
North Carolina Area Health Education Centers
North Carolina Association of Campus Law Enforcement Administrators
North Carolina Association of Community College Business Officers
North Carolina Association of Community College Presidents
North Carolina Association of Community College Trustees
North Carolina Association of Respiratory Educators
North Carolina Association of Surgical Technology Educators
Disclosure

Central Piedmont Community College (CPCC) reserves the right to change its regulations, policies, fees, and programs without notice.

Corporate and Continuing Education (CCE) Course Schedule

Courses offered in Corporate and Continuing Education are listed each term in the printed CCE Course Schedule available at www.cpcc.edu/cce or at any campus.

Equal Opportunity

Central Piedmont Community College is an equal opportunity institution. All programs, activities and facilities are available to all on a non-discriminatory basis without regard to race, color, religion, gender, age, handicap, or national origin. (Call 704.330.6524.)

The College provides access, equal opportunity and reasonable accommodations in services, programs, activities, education and employment for individuals with disabilities. Reasonable accommodations will be provided to individuals with disabilities upon request, five business days in advance of the activity. (Call 704.330.6878.)

Central Piedmont Community College does not discriminate in education or in employment. For more information about our non-discrimination policies visit www.cpcc.edu/administration/policies-and-procedures.

Students who wish to report a concern or complaint relating to discrimination or harassment may do so by reporting the concern to the College’s Title IX Coordinator:

Leon Matthews
Director of Equal Opportunity
P.O. Box 35009
Charlotte, NC 28235-5009
704.330.3534
cpccequalopportunityoffice@cpcc.edu

Open Door Policy

CPCC has an open-door admission policy for applicants who are high school graduates or are at least 18 years of age and whose admission eligibility conforms to State Board of Community Colleges Code 1D SBCCC400.2 and North Carolina Community College System directives. Admission to the College is open without regard to race, creed, disability, national origin, gender, or age to any student who meets the age and graduation requirements.

Some degree programs have specific requirements for admission. These requirements are available from the division director or a program counselor.
Tuition

Tuition is set by the North Carolina State Board of Community Colleges and is subject to change without notice.

Accreditation

Central Piedmont Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate degrees, diplomas, and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404.679.4500 or see http://www.sacscoc.org for questions about the accreditation of Central Piedmont Community College. Inquiries regarding the programs and services of Central Piedmont Community College should be directed to the College; the Commission on Colleges should be contacted only for questions relating to the College’s accreditation.

Gainful Employment Disclosure Information

Institutions are required to report certain information about students who enrolled in Title IV eligible educational programs that lead to gainful employment in a recognized occupation (GE programs). Institutions must release certain information about its GE Programs to prospective students.

To qualify for federal aid, federal law requires that colleges and training programs prepare students for gainful employment in recognized occupations. The Department of Education defines whether a program successfully prepares students for gainful employment using a two-part test: measuring the relationship between the debt students incur and their incomes after program completion; and measuring the rate at which all enrollees, regardless of completion, repay their loans on time. If a program graduated a large share of students with excessive debt-to-earnings ratios, it would be required to clearly disclose debt burdens to current and prospective students. The program could also become ineligible to participate in federal student aid programs.

Defining gainful employment is one of the best ways to increase student access to quality, affordable education and training. The rule has no impact on student eligibility for federal grants and loans. It affects only which programs are eligible, preventing programs from continuing to profit from federal aid at the expense of students and taxpayers.

For a list of these programs, please visit our website at: http://www.cpcc.edu/gainfulemployment.

Academic Calendar

Fall Semester 2013 - Summer Term 2015

Fall Semester 2013

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Thursday, Aug. 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Short Session</td>
<td>Thursday, Aug. 15 - Fri., Oct. 11</td>
</tr>
<tr>
<td>Labor Day Holiday</td>
<td>Monday, Sept. 2</td>
</tr>
<tr>
<td>Fall Break (CPCC Open)</td>
<td>Monday, Oct. 14 - Tuesday, Oct. 15</td>
</tr>
<tr>
<td>Second Short Session</td>
<td>Wednesday, Oct 16 - Wednesday, Dec. 11</td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td>Thursday, Nov. 28 - Sunday, Dec. 1</td>
</tr>
<tr>
<td>Final Exam Period</td>
<td>Thursday, Dec. 5 - Wednesday, Dec. 11</td>
</tr>
</tbody>
</table>

Spring Semester 2014

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Monday, Jan. 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Short Session</td>
<td>Monday, Jan. 13 - Friday, March 7</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Holiday</td>
<td>Monday Jan. 20</td>
</tr>
<tr>
<td>Spring Break (CPCC Open)</td>
<td>Monday, March 10 - Sunday, March 16</td>
</tr>
<tr>
<td>Second Short Session</td>
<td>Monday, March 17 - Tuesday, May 13</td>
</tr>
<tr>
<td>Spring Holidays</td>
<td>Friday, April 18 - Sunday, April 20</td>
</tr>
<tr>
<td>Semester Ends</td>
<td>Tuesday, May 13</td>
</tr>
<tr>
<td>Final Exam Period</td>
<td>Wednesday, May 7 - Tuesday, May 13</td>
</tr>
<tr>
<td>Graduation</td>
<td>Thursday, May 15</td>
</tr>
</tbody>
</table>

Summer Term 2014 (8 weeks)

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Wednesday, May 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial Day Holiday</td>
<td>Monday, May 26</td>
</tr>
<tr>
<td>Independence Day Holiday</td>
<td>Friday, July 4 - Sunday, July 6</td>
</tr>
<tr>
<td>Term Ends</td>
<td>Thursday, July 17</td>
</tr>
</tbody>
</table>

Fall Semester 2014

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Monday, Aug. 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Short Session</td>
<td>Monday, Aug. 18 - Friday, Oct. 10</td>
</tr>
<tr>
<td>Labor Day Holiday</td>
<td>Monday, Sept. 1</td>
</tr>
<tr>
<td>Fall Break (CPCC Open)</td>
<td>Monday, Oct. 13 - Tuesday, Oct. 14</td>
</tr>
<tr>
<td>Second Short Session</td>
<td>Wednesday, Oct. 15 - Friday, Dec. 12</td>
</tr>
<tr>
<td>Thanksgiving Holiday</td>
<td>Thursday, Nov. 27 - Sunday, Nov. 30</td>
</tr>
<tr>
<td>Final Exam Period</td>
<td>Saturday, Dec. 6 - Friday, Dec. 12</td>
</tr>
<tr>
<td>Semester Ends</td>
<td>Friday, Dec. 12</td>
</tr>
<tr>
<td>Winter Holidays</td>
<td>Monday, Dec. 15 - Friday, Jan. 9</td>
</tr>
</tbody>
</table>

Spring Semester 2015

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Monday, Jan. 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Short Session</td>
<td>Monday, Jan. 12 - Friday, March 6</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Holiday</td>
<td>Monday, Jan. 19</td>
</tr>
<tr>
<td>Spring Break (CPCC Open)</td>
<td>Monday, March 9 - Sunday, March 15</td>
</tr>
<tr>
<td>Second Short Session</td>
<td>Monday, March 16 - Tuesday, May 12</td>
</tr>
<tr>
<td>Spring Holidays</td>
<td>Friday, April 3 - Sunday, April 5</td>
</tr>
<tr>
<td>Semester Ends</td>
<td>Tuesday, May 12</td>
</tr>
<tr>
<td>Final Exam Period</td>
<td>Wednesday, May 6 - Tuesday, May 12</td>
</tr>
<tr>
<td>Graduation</td>
<td>Thursday, May 14</td>
</tr>
</tbody>
</table>

Summer Term 2015 (8 weeks)

<table>
<thead>
<tr>
<th>Classes Begin</th>
<th>Wednesday, May 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial Day Holiday</td>
<td>Monday, May 25</td>
</tr>
</tbody>
</table>
Independence Day Holiday  Saturday, July 4 - Monday, July 6
Term Ends  Thursday, July 16

CPCC is closed on holidays listed above. Advisement week and registration dates for each term will be announced on the CPCC website. Corporate and Continuing Education registration is ongoing throughout the term. For additional information, call the CPCC Information Center at 704.330.2722. The calendar is subject to change. For the most current version, consult the online calendar at www.cpcc.edu.

Administration and Foundation

Board of Trustees
• Ralph A. Pitts — Chairman
• Jane G. Cooper — Vice Chairman
• P. Anthony Zeiss — Secretary

Appointed by the Governor
• To be appointed — 2017
• Robert Reid — 2016
• Edwin A. Dalrymple — 2015
• Ralph A. Pitts — 2014

Appointed by the Mecklenburg County Board of Commissioners
• Madelyn Caple — 2017
• Benton S. Bragg — 2016
• Dr. Wilhelmenia I. Rembert — 2015
• Judith N. Allison — 2014

Appointed by the Charlotte-Mecklenburg County Board of Education
• Violeta Moser — 2017
• Darrel J. Williams — 2016
• Carlos E. Sanchez — 2015
• Jane G. Cooper — 2014

Student Government Association President, Ex Officio

Administration
• P. Anthony Zeiss — President
• Kathy H. Drumm — Executive Vice President
• Richard Zollinger — Vice President for Learning and Workforce Development
• Marcia Conston — Vice President for Enrollment and Student Services
• Michael Moss — Vice President for Finance and Administrative Services
• Kevin McCarthy — Vice President for Institutional Advancement
• David Kim — Vice President, Technology and Chief Information Officer
• Susan Oleson-Briggs — Executive Assistant to the President
• Jeff Lowrance — PIO and Assistant to the President for Community Relations and Marketing Services

• Debbie Bouton — Associate Vice President, Learning
• Michael Horn — Associate Vice President, Government Relations, Resource Development, and Grants
• Brenda Leonard — Associate Vice President, Compliance and Audit
• Terri Manning — Associate Vice President, Institutional Research
• Rich Rosenthal — Associate Vice President, Facilities and Construction
• Paul Santos — Associate Vice President, Human Resources
• Diep Tong — Associate Vice President, Financial Services
• Rita Dawkins — Associate Vice President, Student Success Services
• James Hillier — Associate Chief Information Officer
• Tamara Williams — Dean, Merancas Campus Public Safety and Transport Technologies
• Gloria Kelley — Dean, Library Services
• Paul Koehnke — Dean, Central Campus/Health Sciences, Culinary and Fine Arts
• Janet Malkemes — Dean, Cato Campus/Professional Careers
• Edith McElroy — Dean, Levine Campus/Business, International and General Studies
• Kathi McLeod — Dean, Community Development
• Karen Merriman — Dean, Professional Development and eLearning
• Chris Paynter — Dean, Science, Technology, Engineering and Math
• Jay Potter — Dean, Harper Campus/Applied Technologies and Construction Institute
• Mary Vickers-Koch — Dean, Harris Campus/Business and Industry Learning Services
• Mark Helms — Dean, Student Life and Service Learning
• April Jones — Dean, Enrollment Services
• Daniel McEachern — Dean, Enrollment Management
• Clint McElroy — Dean, Retention Services

CPCC Foundation, Inc.
The CPCC Foundation exists solely for the benefit of the College and its students. The Foundation solicits gifts from individuals, corporations and foundations. These gifts are used for student scholarships, instructional equipment, capital projects, new program funds, innovation and recognition awards, endowment funds and a variety of other needs not met through traditional funding sources.

The annual CPCC Charlotte Skyline Run and a clay shooting sporting event are sponsored by the Foundation to raise support and visibility for the College. The Foundation also works to engage College alumni in the life of their alma mater.

Ways to support the work of the Foundation include gifts of cash or securities, bequests, estate plans, honorariums and memorial funds. Contributions may be designated for specific programs and projects and may be given outright or through a pledge extended over a period of time.

All donations for the College should be directed to the Central Piedmont Community College Foundation, a 501(c)(3) organization, qualified to receive tax-deductible contributions.

The address is:
The CPCC Foundation, Inc.
Post Office Box 35009
Charlotte, NC 28235-5009
Faculty and Professional Staff

Glossary

The explanations below define words that are frequently used at Central Piedmont Community College.

Academic Advisor: A member of the faculty in a specified program who works with students in that program to help them reach their educational goals.

Academic Intervention: The status of students working for a degree, diploma, or certificate when their program GPA in any semester is below Standards of Progress required for the number of semester hours they attempted.

Academic Suspension: The status of students working for a degree, diploma, or certificate after they have been on Academic Probation their program GPA remains below Standards of Progress.

Adult High School (AHS): A program offered in cooperation with the public school system. A diploma is awarded upon program completion and passing of the North Carolina Competency Test.

Advisement Week: A week each semester, prior to registration, when students are encouraged to meet with their faculty advisors and program counselors.

Associate Degree: A document issued to a student signifying completion of a two-year curriculum/program.

Associate in Arts (A.A.): A degree granted for planned programs of study consisting of a minimum of 64 semester hours and a maximum of 65 semester hours of college transfer courses.

Associate in Applied Science (A.A.S.): A degree granted for planned programs of 46-76 semester hours of coursework to provide entry-level employment education. An A.A.S. program must include a minimum of 15 hours of general education and a minimum of 49 hours of major courses with numbers 110-199 or 210-299.

Associate in Fine Arts (A.F.A): A degree granted for planned programs of study consisting of a minimum of 64 semester hours and a maximum of 65 semester hours of college transfer courses, with an emphasis on the arts.

Associate in General Education (A.G.E): A degree which is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth and development. The program may include both university transfer and non-transfer courses.

Associate in Science (A.S.): A degree granted for planned programs of study consisting of a minimum of 64 semester hours and a maximum of 65 semester hours of college transfer courses, with emphasis on the natural sciences.

Basic Studies: Pre-college courses that include Adult Basic Literacy Education (ABLE), Adult Basic Education (ABE), Adult High School Diploma (HSD), Developmental Studies courses, General Educational Development (GED), Limited English Proficiency and Workplace Basic Education.

BioNetwork: A statewide initiative that connects community colleges across North Carolina, providing specialized training, curricula and equipment to develop a world-class workforce for the biotechnology, pharmaceutical and life science industries.

Career and College Promise: A program that provides seamless dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas and associate degrees that lead to college transfer or provide entry-level job skills.

Academic Certificate: A program comprised of 12-18 semester hours of courses designed to provide entry-level employment training.

Classification of Instructional Programs Codes (CIP Codes): Nationally recognized codes to classify instructional programs for educational research and funding purposes.

Colleague: A software package with enhancements and ancillary third-party products designed to interconnect the functions at the college level and to manage processes that are shared by the colleges and the System Office.

College Information System (CIS): A two-part system to interconnect all facets of NCCCS records – commonly differentiated as Colleague and Data Warehouse.

College Transfer Programs: The programs intended for transfer to senior institutions including the Associate in Arts, Associate in Science and Associate in Fine Arts.

College Visitation Day: Usually held annually in November when representatives from many four-year colleges and universities and representatives of the armed services are available to CPCC students to provide information.

Combined Course Library (CCL): The set of statewide uniform courses from which North Carolina community colleges must choose their curriculum course offerings.

Common Core Courses: Those courses that have been identified as part of a guaranteed transfer articulation with the University of North Carolina system. See Comprehensive Articulation Agreement.

Comprehensive Articulation Agreement (CAA): An agreement between the North Carolina Community College System and public and private universities to facilitate transfer between community colleges and four-year universities.

Continuing Education Unit (CEU): A unit of credit toward specific certification awarded for continuing education courses in collaboration with the certifying agency.

Cooperative Education (Co-Op): Cooperative Education is an academic program that integrates classroom studies with practical experience in business, industry, and public and community agency work situations. The Co-Op experience is concurrent with or in alternation with academic studies, may be paid or unpaid and awards students academic credit.

Core Competency: A complex ability essential to lifelong learning that is developed over time. CPCC has identified four core competencies critical to the success of every CPCC graduate. All CPCC graduates are expected to demonstrate proficiency in each of the following competencies.
that go beyond simple content mastery: Communication, Critical Thinking, Personal Growth and Responsibility and Information Technology and Quantitative Literacy.

Corequisite: A course that must be taken during the same term as the course that required the corequisite.

Corporate and Continuing Education: A division of CPCC that offers continuing non-degree education courses, programs and services for employers, organizations and individuals. These courses have 7000-8000 numbers; some offer professional CEUs and meet certification and licensing requirements.

Corporate Learning Center (CLC): A unit of CPCC that works directly with business and industry client companies to provide services, custom course content and exclusive programming, often on site and at preferred times for employers.

Course Description: A brief description of learning objectives and what the student should be able to do upon completion. Classroom hours, laboratory hours, clinic or co-op hours, credits earned and prerequisite/co-requisite (if needed) are listed.

Credit: The number of units earned upon completing a curriculum course, measured in semester hours.

Curriculum (also called a program): A set of courses designed to prepare a student either to enter the workforce immediately upon completion or to transfer to a degree program at a four-year college or university. Depending upon the length of the program, a degree, diploma, or certificate is awarded upon completion.

Curriculum Improvement Project (CIP Project): A two-year project with state-wide representation to assess the current employer needs for a particular program area and revise courses and curriculum standards as required to meet the employer needs.

Curriculum Review Committee (CRC): A committee of academic officers and presidents that serves as an arm of the State Board of Community Colleges, with the specific purpose of maintaining the curriculum courses in the Combined Course Library. This committee is charged with the responsibility of keeping the curriculum courses in the Combined Course Library current while guarding against proliferation of course duplications.

Data Warehouse: A massive database that stores five years of raw data. Standard reports with a fixed “snapshot” of data at a given date are available through menu/standard command options. Ad hoc reports are based on data in the warehouse on the day extracted; consequently, ad hoc results vary as colleges update records.

Developmental Studies Courses: Pre-college courses (identified with a beginning 0 digit) that prepare students for college-level courses.

Diploma: A program comprised of 36-48 semester hours, including a minimum of 6 hours general education, which provide entry-level employment training.

Distance Learning (DL): Organized delivery by means other than face-to-face classroom contact, such as via the Internet or telecourse.

Drop/Add: A period during registration when students may change their class schedules without penalty. See Schedule Adjustment.

Elective Course: A course that the student may choose to take to meet diploma/degree requirements, as distinguished from required courses. Some electives are specified within areas, such as Technical Electives or Humanities/Art Electives; others are Free Electives.

Faculty Advisor: A member of the faculty in a program who is assigned as an advisor to students in that program to help them meet their educational goals.

Fall Break: A short break in mid-fall semester when the College is open but classes are suspended.

Final Examination Week: A period of time at the end of each semester when instructors may schedule final examinations. The examination schedule is published with the Class Schedule so that students will know at the time of registration when the examination will be.

Full-Time Equivalency (FTE): The number of hours equivalent to the hours one student is enrolled for the normal academic year of spring and fall terms. This method enables colleges to recognize the impact of part-time students as an aggregate.

Full-Time Student: A student enrolled for 12 or more credits during fall and spring terms and for 9 or more credits during summer term.

General Education Courses: These courses, required in all degree programs, ensure that graduates have the necessary general knowledge, abilities and intellectual skills commensurate with their degrees.

General Educational Development (GED): A program which provides instruction and testing for adults to complete their high school equivalency.

General Occupational Technology (GOT): A curriculum which is unique to an individual student’s particular needs for employability skills.

Grade Point Average (GPA): The total number of grade points earned \((A=4; B=3; C=2; D=1; F=0)\) divided by the total number of semester hours attempted.

In-State Student: A legal resident of North Carolina.

Lab Fee: An additional charge for some classes that have labs as part of the course structure. Lab fees are used exclusively by the division to purchase supplies and equipment for the lab to which the fees are applied.

Lateral Entry Teachers: Professionals who have a bachelor’s degree, have met state qualifications and hold K-12 teaching positions while seeking initial licensure.

North Carolina Administrative Code (NCAC): The administrative regulations that ensure compliance with North Carolina laws.

North Carolina Information Highway (NCIH): A network of interconnected sites to provide simultaneous interaction among those sites for classes, meetings, forums, etc.

Out-of-State Student: A legal resident of a state other than North Carolina, or a legal resident of a foreign country.

Part-Time Student: A student enrolled for fewer than 12 credits during fall and spring terms and for fewer than 9 credits during summer term.

Prerequisite: Any course that must be completed before enrolling in the course requiring the prerequisite.

Program: See Curriculum.
Program Description: Information about the program including the official definition, degree/diploma/certificate awarded, admissions processing and a list of courses in that curriculum.

Program GPA: The grade point average of a student in the courses that are required for completion of a program. To remain in good academic standing, students must maintain a program GPA in accord with the hours for which they enroll, as prescribed by the CPCC Grading Policy. Students must have a final program GPA of 2.0 (C) in order to graduate.

Program of Study (POS): A listing of the exact courses that a college plans to offer to fulfill the requirements of a curriculum program.

Schedule Adjustment: A time during the first week of each term when students may drop or add classes without penalty.

Semester Hour Credits (SHC): Credit assigned to a course that represents the contact in a normal 16-week semester, based on formulas for class, lab, work and clinical methods of instruction.

Spring Break: A short break in mid-spring semester when the College is open but classes are suspended.

Standards of Progress: Guidelines that are part of CPCC’s Grading Policy and include requirements for students in degree, diploma and certificate programs to maintain good academic standing. These standards include completion of courses, minimum program GPA and minimum semester GPA. When students do not meet these standards, they are placed on Academic Probation or Academic Suspension, and they work more closely with their faculty advisor or program counselor in order to reach their educational goals.

State Board of Community Colleges (SBCC): The governing body of the North Carolina Community College System.

Transcript: A student’s official academic record.

Transferability: The acceptability for credit of a course or program by another college or university.

Transfer Programs: See College Transfer Programs.

Tuition: The amount of money a student must pay at the time of registration for each hour of academic credit based on the student’s residency classification.

Virtual Learning Community (VLC): A service of the North Carolina Community College System that provides courses for the colleges in the system to use for distance education.

Programs and Services

To carry out CPCC’s mission, the College provides educational programs and services in the following areas:

Degree Programs, Diplomas and Certificates

The cornerstone of the North Carolina Community College System is the preparation of students for entry into the workforce, job changes and career advancement to meet individual goals and regional needs. In addition, community colleges provide students opportunities to transfer to four-year colleges and universities. The College offers career programs in a broad range of occupational areas.

Associate in Applied Science (A.A.S.)

The College offers two-year A.A.S. degrees and shorter-term diploma and certificate programs. Graduates of these programs develop marketable employment and college-level academic skills. In some cases, courses within the programs are transferable to colleges and universities. Students may reach other career goals including updating job skills, career advancement and re-entry into the workforce. In support of these programs, the College continues to form partnerships with business and industry.

Transfer Programs

The College provides the first two years of study in the arts and sciences and pre-professional fields for those students who wish to transfer to four-year colleges and universities in the A.A., A.S., and A.F.A. degrees. Students are able to transfer a diploma or an associate degree to four-year colleges prepared with the background and skills necessary to succeed in their further studies. Graduates have college-level academic skills and have successfully completed the general education core curriculum.

Comprehensive Articulation Agreement

The Comprehensive Articulation Agreement became effective in 1997. This agreement addresses the transfer of credits among institutions in the North Carolina Community College System and to constituent institutions of the University of North Carolina. Community college graduates of the Associate in Arts (A.A.) degree and Associate in Science (A.S.) degree programs who have completed the general education transfer core will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving institution.

College and Career Readiness

A basic premise of the community college movement is the expansion of educational opportunities for all adults, including those facing academic barriers to success. The College and Career Readiness department offers pre-college courses to help students improve their skills before enrolling in college or seeking employment.

A variety of pre-college courses are offered in language arts, math, GED Test preparation, Adult High School, English as a Second Language, and specialized programs that integrate occupational training with academic and job readiness. Programs are also offered at libraries, public schools, and community sites to target special populations including newly arrived refugees, parents and the homeless.

Corporate and Continuing Education

Corporate and Continuing Education is offered across College disciplines and in relevant and popular topic areas through non-credit programming, events and services for individuals and employers. With flexibility in design, content and delivery, Corporate and Continuing Education plays a significant role in meeting the training needs of business and industry. Strong partnerships with governmental and community organizations allow the College to leverage multiple funding sources and to provide targeted and often hands-on skill training and knowledge to ensure a ready and reliable workforce.

For individuals, Corporate and Continuing Education offers year-round programming and services to help adults meet their professional and personal goals, including starting or growing a small business or preparing for retirement. Such a comprehensive selection allows individuals to
earn certifications and professional licensure-track courses, as well as to pursue recreational and leisure programming.

**Community Service**

Service to the Charlotte-Mecklenburg community has long been one of the core values of CPCC. The College offers a wide range of high-quality speakers and cultural and artistic events presented in state-of-the-art performance venues.

Additionally, the College has a Service-Learning Center whose mission is to promote civic engagement and develop a culture of service among students, faculty and staff. This program has supported the efforts of hundreds of local agencies and assisted our students in becoming more engaged citizens and learners.

**International Student Services and the Global Learning Office**

International Student Services is committed to supporting the academic and personal growth of foreign students at CPCC. Students from around the world can attend CPCC to study intensive English or one of our degree certificate or diploma programs. With more than 300 students studying at CPCC on a student visa, CPCC continues to recognize the importance of preparing our students to be globally competent and prepare them with the international knowledge necessary to build and maintain a strong, globally competitive economy in the Charlotte region.

A goal of CPCC’s Global Learning Office (GLO) is to prepare students and faculty for life and work in a global society. The GLO accomplishes this by facilitating the Global Issues Forums, expanding study abroad and international service-learning opportunities and strengthening ties with local and international organizations to increase opportunities for workforce development.

**Enrollment and Student Services**

Enrollment and Student Services (ESS) is committed to providing quality educational support to facilitate student success for a diverse student population. Services provided include first year experience support, recruitment, enrollment, financial aid, graduation, academic advising and tutoring, career and personal counseling, disability services, international services, testing, veterans’ services, and student activities. ESS collaborates with academic units to support the mission of the College through comprehensive student-centered initiatives.

**Instructional Development**

CPCC is a leader among community colleges in instructional development and support. Experimentation and innovation in instruction and the use of alternative instructional delivery systems remain major initiatives.

The College provides support for instructors to experiment with non-traditional modes of teaching and learning through classroom research, through the use of technology incorporated into the classroom and through alternative delivery systems and scheduling. The Instructional Support area provides media and learning services that give support to instructors and students to enhance the teaching and learning process.

**Administrative Support**

CPCC administration provides effective leadership by setting the tone and direction for the College and by granting employees the authority and resources to carry out their duties. The College efficiently and effectively expends its resources and is committed to maintaining a leadership role in its utilization of personnel and facilities. These effective administrative processes allow the College to focus on its primary mission of providing the highest quality educational programs and services.
Student Services

CPCC provides a comprehensive assortment of services and resources to help students reach their full potential, such as the Office of Student Life, Global Learning, Disability Services and others.

These staff members are committed to responding to students’ needs, helping them succeed at all levels.

Academic Learning Center (ALC)

The Ruth G. Shaw Academic Learning Center (ALC) is a comprehensive tutorial center that provides assistance to CPCC students enrolled in curriculum courses. The Center is located on Central Campus in the Central High Building, Room 103. Assistance is available to students in the following key areas: math, science, writing and study skills. The ALC promotes independent learning and development of the skills necessary to support academic and life-long learning success. Group supplemental instruction sessions are offered, along with one-to-one tutoring sessions arranged by appointment. The ALC also houses a computer lab with limited assistance for student use.

Services are available on all campuses, but schedules vary by location. For further information, contact the ALC at 704.330.6474 or visit www.cpcc.edu/academic_learning.

Admissions and Testing

Central Piedmont Community College follows an “open door” policy that welcomes all students without regard to color, creed, disability, race, national origin, or gender. Admission to the College; however, does not mean that students will be admitted immediately to a program with specified admissions requirements. All degree and diploma programs require high school graduation or its equivalent. The high school graduation requirement is considered to have been met by graduation from a high school recognized by the United States Department of Education (USDE), or from a high school accredited by an accrediting organization recognized by the Council for Higher Education (CHEA), or a certified home school, or by possession of a State High School Diploma Equivalency (GED Diploma) or by possession of an Adult High School Diploma. Steps in admissions vary, depending on what a student plans to accomplish at CPCC. Students are encouraged to contact the College early in order to complete the steps outlined here before the registration period begins. The College has priority admissions deadlines, to find out more about these deadlines please visit www.cpcc.edu/admissions. Questions should be directed to any CPCC campus or by calling 704.330.2722. Information about admissions processes and the College is also available online at www.cpcc.edu.

Degree-Seeking Students

Students who plan to enter a degree, diploma, or credit certificate program need to follow these steps. If you need help with any of these steps, contact First Year Experience at 704.330.6100 or by emailing fye@cpcc.edu.

1. Complete and submit a CPCC admission form available online at www.cpcc.edu. Within an hour of submitting the application online, you should receive an email with your Student ID Number. You will need that number when creating your CPCC Login. You can also get the application at the Student Success Center, Admissions Offices at any CPCC campus, by mail, or in College catalogs. Indicate the program you are considering or plan to enter. (Students planning to transfer to a four-year college or university should select either the Associate in Arts, Associate in Fine Arts, or Associate in Science Degree.)

2. Create your CPCC Login (Username and Password). You will be assigned a username and must create a password to complete your “CPCC login” at secure2.cpcc.edu/cpcc.login. This login is required to access your personal information such as financial aid documentation, academic records and student email account. It is also required to log on to the computers at any CPCC campus.

3. Sign up for and attend Orientation and Advising. Orientation is a 1½ hour session that introduces you to CPCC and its many programs and services. At Orientation, you will sign up for an Advising Session. During Advising, an academic advisor will review your placement test scores, programs of interest and suggest courses for the upcoming term. Sessions are offered at all campuses throughout the year. Contact First Year Experience at 704.330.6100 or email fye@cpcc.edu for additional assistance and information.

4. Submit official transcripts from high school and all prior colleges attended. As well, if you submit military records and official score reports for Advanced Placement (AP) or International Baccalaureate (IB) testing, these will be evaluated for college credit. These documents can be mailed to: CPCC Student Records, PO Box 35009, Charlotte, NC 28235-5009. Admission to a degree program requires proof of high school completion confirmed by an official, unopened high school transcript with a graduation date.

• Home-schooled students must provide evidence of completion of a state approved home school program in addition to a transcript.

• International transcripts must be translated into English and student must provide certified copies of both the original transcript and the English translation. Have the transcripts translated and evaluated through an agency recognized by NACES (www.naces.org (http://www.naces.org)).

• Students applying for certificate programs may not be required to submit high school transcripts. Check requirements of your specific certificate programs. Students who decide to continue their studies and apply for a diploma or degree program must submit high school transcripts. (Students applying for financial aid/ veterans affairs benefits will need a high school transcript or GED on file.)

• Students who are unable to produce official high school transcripts must present acceptable evidence of high school completion. Decisions will be made on a case-by-case basis and made by the Associate Dean for Admissions and Registration.

• Students who provide an official college transcript with a completed associate degree or higher from a regionally accredited institution do not have to submit a high school transcript.

• Veteran Affairs students must submit all prior official military, college transcripts, and a copy of their individual Member 4 DD214

5. Study for ACCUPLACER placement tests using the ACCUPLACER practice tests and review videos. Then, take the ACCUPLACER placement tests. The ACCUPLACER tests are now mandatory, but you may qualify for a waiver if you have high ACT or SAT scores, transfer credits in college level English or math, or ASSET, COMPASS, or ACCUPLACER scores from another institution. Placement test scores should be sent directly to the CPCC Placement Testing Center.
Students who need career/life planning assistance should do the following:

• Placement test scores determine the number and sequence of courses that you must take. Placement test scores, therefore, will affect the length and cost of your program at CPCC. Students who need an accommodation to take the placement test due to a disability, must contact Disability Services, prior to taking the test. For more information, go to www.cpcc.edu/firstyear.

6. Apply for student financial aid from the federal government to determine eligibility for the Federal Pell Grant, Federal Supplement Educational Opportunity Grant, the Federal Work-Study Program and the Federal Direct Lending Program. Complete and submit the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov (http://www.fafsa.ed.gov). Completion of the FAFSA is also required to determine eligibility for all State Grants and scholarships. If you need help or have questions, see First Year Financial Aid in the Central High Building, room 112 on Central Campus or visit a Financial Aid Office on any of the College’s six campuses.

• In order to provide adequate time for processing and awarding aid, priority dates are identified for each semester. If a financial aid application is submitted after the priority dates, the student should be prepared to pay for tuition, fees and books. (Priority dates are: Fall semester, July 1; Spring semester, December 1; Summer semester, May 1.)

7. Register and pay for classes, or confirm that you have a financial aid award by your payment due date. You will learn how to register for your classes during Orientation. You can register for your classes online, or come to a campus for help. If you are not receiving financial aid, or if you have a partial award or your award has not yet been processed, you will need to pay for your classes online through your MyCollege Account at www.cpcc.edu or at the Cashiering Office. Check the status of your financial aid by accessing your MyCollege Account in the Financial Aid and Communication sections of Web Advisor.

Career/Life Planning Assistance

Students who need career/life planning assistance should do the following:

• New students should complete admissions processing as described in steps 1-8 above and meet with an academic advisor in the First Year Advising office before registering to discuss test results, program of study choices and to receive assistance in developing an educational plan that correlates with life goals and objectives.

• Students with previous college credit, but new to CPCC, should complete the admissions application, attend orientation, satisfy English and math placement requirements, and then schedule an appointment to meet with the First Year Advising staff to get academically advised and receive course recommendation. In addition to academic planning, First Year Advising staff can provide assistance with defining goals, strengthening motivation, and connecting with available resources.

• Any student experiencing difficulties with emotional, social, or personal concerns can seek assistance from Counseling Services by visiting their offices on any campus or calling 704.330.6433.

• Currently enrolled students who need career counseling or job search assistance may schedule an appointment with a career counselor by calling 704.330.6433.

Program Changes

• Students who want to change their program of study must meet with the academic department offering the intended program of study or the Counseling and Advisement Office before registration begins. Veterans Affairs students must contact CPCC’s VA Office before making any program changes.

Non-Degree Students

Students wanting only to take college-level courses who do not plan to pursue a degree, diploma, or certificate should:

• Complete and submit an admissions application, available at any CPCC campus, in the College catalog and online at www.cpcc.edu.

• Contact Counseling and Advisement Services to request an override of the Mandatory Placement Test policy.

• Meet course prerequisite requirements (if any) before registering. The College catalog lists prerequisites in the “Course Descriptions” section. These may be met in one of the following ways:
  • Previous college credits: transcripts from regionally accredited colleges and universities should be submitted to the Admissions Office and evaluated for CPCC equivalents. Transcripts can also be reviewed by Counseling and Advisement or by the academic department offering the course; on the basis of this review, permission may be granted for registration, if appropriate.
  • The College Placement Test or other assessment: the ACCUPLACER tests are now mandatory, but you may qualify for a waiver if you have high ACT or SAT scores, transfer credits in college—level English and/or math, or ASSET, COMPASS, or ACCUPLACER scores from another institution. Placement test scores should be sent directly to the CPCC Placement Testing Center. Some prerequisites, such as those for English and math, can be satisfied through CPCC placement testing, or it may be necessary to complete prerequisite coursework here at the College. Contact Admissions and Registration at any campus or call 704.330.2722 for more information.

High School Completion Students

For students who plan to complete high school (grades 9-12), CPCC offers the Adult High School (HSD), and the General Educational Development (GED) test preparation programs.

• The Adult High School Diploma (HSD) program leads to a high school diploma granted by the Charlotte-Mecklenberg Board of Education. The number of credits required for graduation is determined by the year in which the student started the 9th grade. A minimum of 20 credits is required. For more information, call 704.330.612.

• The General Educational Development (GED) Preparation Program offers another opportunity for students who have not completed high school. A High School Diploma Equivalency is awarded by the North Carolina Community College System Office after a student passes five individual tests in writing skills (including a written essay requirement), social studies, science, literature and mathematics with a total score of 2250. A pre-test is used to evaluate performance levels and instructional needs before testing. GED classes are available at each campus, online and at several off-campus locations. The GED program offers various options for students desiring to attain their GED, such as GED Fast Track, Pathways, GED Online and the GED
Foundational Skills Programs

The Foundational Skills Program is designed for students who need to improve their basic skills to meet the entry requirements for the GED, Adult High School, or Pathways programs. Foundational Skills offers a new approach for adults who need to improve their reading, writing, or math skills by combining the use of computers, videos, specialized programming, and tutors. Courses are offered at both campus and community site locations. Upon completion of the Foundational Skills Program, students may enroll in the Adult High School, GED or Pathways programs. There is no charge for these classes. For more information, call 704.330.6129.

English as a Second Language

The English as a Second Language Program is designed for non-native speakers who desire to improve their reading and communication skills for the purposes of civic engagement, work, and/or college and career readiness. Courses are taught on campus and at a variety of community site locations. Students study the customs and traditions of American culture while learning the language. Academic and vocational courses may be taken when the student’s language proficiency allows. For more information, call 704.330.6172.

Pathways to Careers

This program is designed to provide training and academic support for entry-level employment in high demand careers. Pathways offers a comprehensive program by providing contextualized academic skill development, career advising, work readiness and occupational training. Students are given the opportunity to earn a high school credential (GED or Adult High School diploma) while earning an occupational certificate in one of several areas such as developmental disabilities, welding, or medical reimbursement.

Cooperative High School Programs

- Students currently enrolled in North Carolina high schools who want to take courses at CPCC through the Career and College Promise program, please visit www.cpcc.edu/hsprograms.

International Students

- **Student Visas (F-1 visas):** Students must complete the Academic English as a Second Language Program (ESL) to enter a college-level program. A TOEFL score is not required to apply to CPCC. However, you must meet the TOEFL, IELTS, or AAT requirements, or take and complete the Academic English as a Second Language Program (ESL) to enter a college-level program.
- **Internet-based Test of English as a Foreign Language (IBT TOEFL)**
  Reading 17; Listening 17; Speaking 16; and Writing 16.
- **Academic International English Language Testing System (Academic IELTS)**
  Reading 6.5; Listening 6.5; Speaking 6.5; and Writing 6.5. If any single score on either test falls below the minimum, the student is required to take, and complete, the Academic English as a Second Language ESL Program. CPCC no longer accepts Paper-based TOEFL (PBT) or Computer-based (cBT) TOEFL. A $40 processing fee is required and must be submitted with the completed international student application. Any international student (non-immigrant) who is admitted to CPCC under an F-1 student visa must purchase medical insurance prior to registration each semester. Applications for international student enrollment at CPCC are available in the Office of International Programs and Services located in the Central High Building, room 101, by phone at 704.330.6838, or online at www.cpcc.edu/international_services.

- **Permanent resident aliens or other visa holders:** Alien registration card holders and others holding certain valid work visas are admitted to the College in the same manner as native citizens of the United States. (Restrictions may apply to some visa types regarding residence classification for tuition purposes.)

- **Undocumented Immigrants**

  The North Carolina Community College System advised in Memorandum CC10-026 (effective June 10, 2010) that community colleges should admit or enroll undocumented or illegal immigrants only as follows:
  - Undocumented immigrants who are high school students may enroll in college-level courses consistent with the Career and College Promise policy. Participation in this program is not based on legal residence, but on attendance in a North Carolina high school. These courses are open to all high school students attending high school (public, private, or home school) located in the state who meet the eligibility criteria.
  - Undocumented immigrants may enroll in non-college-level courses or programs including GED preparation courses, Adult Basic Education, Adult High School, English as a Second Language and other continuing education courses less than college level.
  - Undocumented or battered illegal immigrants who have been determined to meet one of the qualifying conditions in Federal Law, 8 USC Section 1641 are eligible for college-level courses. It is the applicant’s responsibility to produce sufficient written documentation to satisfy the College that the applicant is eligible for post-secondary education benefits.
  - Undocumented immigrants must have attended and graduated from a United States public high school, private high school, or home school that operates in compliance with state and local law. **Undocumented immigrants with a General Education Development (GED) diploma are not considered to be “graduated from a United States public high school, private high school, or home school” and therefore are not eligible to be admitted.**
  - Undocumented immigrants who are registered into a class are required to pay the out-of-state tuition rate. **The College shall not enroll undocumented students into a class or program of study for which there are waiting list, nor register undocumented students for classes until the conclusion of the last published (i.e. late) registration period.**

Students with Disabilities

- **Central Piedmont Community College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 which states:** “No otherwise qualified individual with disabilities in the United States shall solely by reason of her/his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Students with documented disabilities may not be discriminated against in the recruitment process, the admissions process and the educational process. Students with documented disabilities may receive approved classroom accommodations and/or auxiliary aids that will allow access to programs and services.**
enable them to participate in and have the opportunity to benefit from all educational programs and activities at Central Piedmont Community College. In order to receive accommodations a student must submit appropriate documentation. Visit the Disability Services website for further information at www.cpcc.edu/disabilities. Please call 704.330.6621, Voice/TTY; 704.330.6241.

Registration

The College year consists of three terms. Fall and spring semesters are 16 weeks each and the summer term is eight weeks. Though the summer session is shorter, classes carry the same course credit as those in other terms (see CPCC’s academic calendar).

Students entering a degree, diploma, or certificate program must complete the admissions process prior to registration.

Returning CPCC students or new students who have completed the admissions process may register online at www.cpcc.edu. Registration dates and information on online registration can be found on the CPCC website. Registration services are offered at all six campuses: Cato, Central, Harper, Harris, Levine, and Merancas. Students are encouraged to register as early as possible to secure a schedule of classes that meets their needs.

Admissions Quick Reference

Admissions Department

Students may obtain assistance and make inquiries about their admissions in the Admissions office in the Central High Building, room 227 or call 704.330.6006.

Foundational Skills

Students who want to read, write, or compute at an adult level may call the Education Center at 704.330.6129.

Students who followed the OSC track in High School or had an IEP and can provide appropriate documentation from Disability Services may call 704.330.6219 or visit the Kratt Building, room 200 on Central Campus.

Adult ESL

Non-native speakers interested in attending free, non-credit, English as a Second Language classes may call 704.330.6172 or visit the Kratt Building, room 200 located on Central Campus.

Counseling and Advisement Services

Students may call 704.330.6433 or visit the Central High Building, room 365 located on Central Campus if they are seeking:
- Academic advising for new and returning students who do not have an assigned faculty advisor for their program of study
- Advising for students in pre-nursing/pre-health careers programs
- Academic counseling for students not meeting academic goals
- Personal counseling and referrals

Disability Services

Students who require accommodations should call 704.330.6621, visit the Terrell Building, room 219 (located on Central Campus) or www.cpcc.edu/disabilities; TTY – 704.330.6421.

Student Support Services

Students may call 704.330.6394 or visit the Central High Building, room 117 located on Central Campus.

Financial Aid

Financial Aid supports students in obtaining their educational goals. For more information call 704.330.6942 or visit a Financial Aid office located on all six campuses.

First Year Experience

Enrollment support for new students taking classes for credit is available at fye@cpcc.edu, 704.330.6100, or the Central High Building, room 110 located on Central Campus.

First Year Financial Aid

Receive personal assistance and information about the financial aid process by visiting the Central High Building, room 112 or by calling 704.330.6942.

First Year Advising

All new students who plan to take college-credit and non-credit courses should call 704.330.6454 or visit the Central High Building 100.

High School Enrichment Program (Career and College Promise)

For more information about programming for students who are in high school, please call 704.330.6637 or visit www.cpcc.edu/hsprograms

High School Diploma Programs

Adult High School or GED Preparation Programs are available for students who need a high school credential. Please call 704.330.6129 or visit the CPCC Education Center located on the Central Campus.

Human Resources Development

Job seeking skills support is available by calling 704.330.6794 or visit the TA Building, room 2117 on Central Campus.

International Students Admissions

Students who seek assistance with the following international issues may contact the College at the associated phone number.
- F-1 Visa Admissions - Central High Building, room 101 or call 704.330.6838.
- Other visa types – Admissions - Central High Building, room 227 or call 704.330.6006.
- Permanent Resident, Admissions - Central High Building, 2nd floor or call 704.330.6006.
- Academic ESL Testing - Testing Center, Central Campus or call 704.330.6914
- Academic English as a Second Language program visit http://people.cpcc.edu/~skh6004e/AcadESLgenl or call 704.330.6914.
**Sponsored Programs-Business Office/ Cashiering**

Students who are receiving financial support from outside the College or who have other financial concerns or questions may call 704.330.4262 or visit the Levine Campus, Bldg 1, room 2131 Business Office.

**Student Success Center**

The Student Success Center provides information and assistance to help connect students with resources within the College and is accessible by in-person visits or by calling 704.330.2722.

**Testing Center**

For test taking strategies, review videos, and practice placement tests call 704.330.6886, or visit www.cpcc.edu/testing_assessment or the Central High Building, room 248.

**Transfer Resource Center**

Students seeking advising services and programs to assist in transferring to four-year colleges or universities may call.

704.330.6454.

**Veterans Affairs Office**

The educational experience of veterans and eligible family members is supported by the Veterans Affairs Office located in the Central High Building, room 206. Students may visit the VA Office or call 704.330.6267.

**Veterans Resource Center**

The Veterans Resource Center (VRC) provides resources and support which address the many aspects of transition from military to civilian life. Students may call the VRC 704.330.6126 or visit the Terrell Building, room 233.

**First Year Experience (FYE)**

First Year Experience provides services that help new students get started at the College. New applicants can find the enrollment steps at www.cpcc.edu/getstarted. These steps include orientation, advising and registration. A short demo video accompanies each step. For assistance, contact FYE by emailing fye@cpcc.edu, calling 704.330.6100, or visit Central Campus – Central High Building, room 100 or Levine Campus, room 2225.

**Testing and Assessment Center**

The Central Campus Testing and Assessment Center, located on the second floor of the Central High Building, room 248, supports the learning process by serving students, faculty and community testing needs. The Center administers a wide variety of tests for instructional, placement, diagnostic, certification, licensure, and other specialized purposes. Its physically attractive atmosphere and low-key method of operation is designed to help reduce test anxiety.

A photo ID is required for all testing services. As a courtesy to others and for security purposes, students are requested to turn off and put away all electronic equipment such as pagers and cell phones before entering testing areas. The Testing Centers cannot accommodate children.

The Central Campus Testing Center is open Monday through Thursday, 8 a.m. - 6 p.m., with the last course test given out at 5:30 p.m. On Friday, the Center is open 8 a.m. - 4:30 p.m., with the last course test given out at 3:30 p.m. Hours are subject to change. Fees may apply for certain testing services. For the most up-to-date information, including testing hours at other campus locations or to schedule a placement test online, please visit www.cpcc.edu/testing_assessment or call 704.330.6886. You may also contact the Testing Center by email at testingcenter@cpcc.edu or call 704.330.6886.

**Bookstores**

**The Right Book, from the Right Place**

When purchasing books and supplies from a CPCC campus bookstore, you can be sure you are getting exactly what you need to be prepared for class. The campus bookstore staff works closely with faculty members to ensure the correct books are in stock. Visit one a CPCC bookstores listed below.

**CPCC Majors Bookstore (Central Campus)**

1112 Charlottetowne Avenue
Charlotte, N.C.
704.330.6649

**Academic year operating hours:**

Monday–Thursday, 7:30 a.m.–6:30 p.m.*
Friday, 7:30 a.m.–4:30 p.m.*
Saturday and Sunday - closed*

* Hours subject to change without notice.

**Extended hours:**

For the start date of extended operating hours, please visit http://cpcc.bncollege.com or call 704.330.6649

**CPCC Levine Bookstore**

2800 Campus Ridge Road
Matthews, N.C.
704.330.4233

**Academic year operating hours:**

Monday–Thursday, 7:30 a.m.–6:30 p.m.*
Friday, 7:30 a.m.–2 p.m.*
Saturday and Sunday - closed*

* Hours subject to change without notice.

**Extended hours:**

For the start date of extended operating hours, please visit http://cpcc.bncollege.com or call 704.330.4233

**CPCC Cato Campus Bookstore**

8120 Grier Road,
Charlotte N.C.
704.330.4832

**Academic year operating hours:**

Monday–Thursday, 8:00 a.m.–6:00 p.m.*
Friday, 8:00 a.m.–2:00 p.m.*
Saturday and Sunday - closed*

* Hours subject to change without notice.
Area Campus Bookstores (Merancas, Harris, Harper)

Academic year operating hours:
Area campus bookstores will open 30 minutes prior to the start of any new or continuing education class for the period of one hour.

Extended hours:
Area campus bookstores are open one week prior to the start of each term through two weeks after the start of the term. Extended hours will be posted at each campus and at http://cpcc.bncollege.com or call the Central Campus Bookstore at 704.330.6649.

For the start date of extended operating hours, please visit http://cpcc.bncollege.com or call 704.330.4832

Extended hours:
For the start date of extended operating hours, please visit http://cpcc.bncollege.com or call 704.330.4832

Career and College Promise

Career and College Promise (formerly known as Cooperative High School Programs, The College Experience Program, and Concurrent Enrollment)

Success in today’s global economy may require a two- or four-year degree, a certificate or diploma. Through Career and College Promise (CCP), qualified high-school-age students in North Carolina have the opportunity to pursue these options, tuition free, while they are in high school, allowing them to get a jumpstart on their workplace and college preparation.

To be eligible, a high school student must meet with their career development coordinator or guidance counselor to determine if they are college ready.

CCP provides the following options for students while they are still in high school:

College Transfer – College transfer pathways provide up to 34 hours of tuition-free course credits toward an agreed-upon 44 hours of college credits that will transfer seamlessly to any public or participating private college or university, saving successful students time and money in pursuing four-year degrees.

Career Technical – The Career Technical pathways lead to a certificate or diploma aligned with a high school Career Cluster. Students must complete a college application to be admitted into a CCP pathway and must meet all prerequisites for the courses they choose.

Cooperative Innovative High School Programs are located on college campuses, enroll 100 or fewer students per grade level, and provide opportunities for students to complete an associate degree program or earn up to two years of college credit within five years. Eligibility requirements for Cooperative Innovative High School Programs are established by the local board of education and local boards of trustees.


For more information visit the CPCC website at www.cpcc.edu/hsprograms/career-college-promise.

Career Resources

Career Services

Career Services helps students and graduates discover and implement their career plans and find job opportunities to meet their goals. The following services are provided:

- Career Counseling. The personalized Career Target Program incorporates virtual activities, career assessments, and individual meetings with a career counselor to assist currently enrolled students who are unsure about their career goals. An online career counseling format is available, or students may choose to meet in-person with a career counselor on any campus.
- Online Career Information. The comprehensive website includes online presentations, links to a wide array of career resources, a Career Guide written by CPCC career counselors and links to area companies.
- Online Job Postings (employneNC) Area employers list job opportunities exclusively for students and alumni on the Career Services online job posting site. Students and alumni can view current openings online at www.cpcc.edu/career.
- Résumé Assistance Résumés may be emailed or dropped off for a complimentary critique.
- Mock Interviewing Practice your interviewing skills with a career counselor and receive feedback while being videotaped. An online option is also available for mock interviewing.
- Career Fair A Career Fair is held each spring for students and community members to meet with employers.
- On-Campus Recruiting Companies visit the campuses to recruit students directly.
- Accessing Career Services In-Person Career Services is available on all campuses. For further information, contact Career Services 704.330.6551 or email career.services@cpcc.edu.

Cooperative Education Programs (Co-op)/Workplace Learning

Cooperative Education is an academic class commonly called Co-op. It blends classroom learning with practical work experience. Instead of attending class in a traditional classroom, students work with an employer in a position directly related to their field of study. Co-op is similar to an internship but students receive academic credit either as an elective or as a required class. Through partnerships with the business community, students gain work experience that increases their chances of finding career-related employment upon completion. Employers have the opportunity to connect with students as faculty support them throughout the Co-op experience. The Co-op work experience may be paid or unpaid.

Eligibility

Students are accepted from various programs of study provided they meet the following criteria:

1. Enrolled in an approved CPCC Co-op curriculum program of study.
2. Met GPA and course completion eligibility requirements as established by the programs of study and/or state regulations.
3. Recommended by the Co-op faculty coordinator.
4. Approved by the Cooperative Education Office. Placement is not guaranteed for all eligible students.
5. Students who meet certain criteria may qualify to receive academic credit for a Co-op work experience at their current job.

For more information, contact the Central Campus Cooperative Education Office, Terrell Building, Room 326, call 704.330.6217, email co-op@cpcc.edu, or visit www.cpcc.edu/cooperative_education. Co-op office locations for all CPCC campuses are listed on the website.

Apprenticeship Charlotte

Apprenticeship Charlotte is CPCC’s unprecedented effort to connect talented students to local employers. By combining classroom and workplace learning, both the employers and selected students share a valuable experience that produces immediate results. Students gain part-time employment and valuable work experience. Employers often cover the cost of tuition, fees and books for apprentices, and many times offer full-time employment upon successful completion of an apprenticeship. Employers benefit from having highly skilled employees in positions that are difficult to fill. In North Carolina, formal or registered apprenticeships are created in agreement between the employer and the N.C. Department of Labor (NCDOL). To learn more about participating in an apprenticeship, potential students should visit www.cpcc.edu/apprenticeships or send an email to workplace.learning@cpcc.edu.

Human Resources Development (HRD)

The mission of the HRD program is to educate and train individuals for success in the workplace. This program is a statewide initiative sponsored by the NC Community College System. The HRD program’s role is to serve unemployed and underemployed individuals across Mecklenburg County who are struggling to deal with the stark transitions taking place as a result of the economy. The HRD program at CPCC provides skills assessment services, employability skills training and career advising to individuals in transition and in the emerging workforce. The courses taught in this program address assessment of an individual’s assets and limitations; development of positive self concept, employability, communication, and problem solving skills; and awareness of the impact of information technology in the workplace.

Eligibility

The classes are offered at no cost for individuals who meet one of the following conditions:

• Unemployed
• Received notice of pending layoff
• Working and eligible for Federal Earned Income Tax Credit
• Working and earning at or below 200 percent of Federal Poverty Guidelines

For more information on the HRD program, call 704.330.6794 or visit online at www.cpcc.edu/ccr/hrd.

College Security

The campus security officers are here to help you. No matter what kind of situation arises at the College, CPCC’s 24-hour Security Dispatch Center, located in the Facilities Services Building on Central Campus, is the first step toward resolving safety issues. As soon as you call for assistance, a radio call will go out to the nearest security officer. Additional resources such as Emergency Medical Services (EMS), Fire and Police are also immediately dispatched based on the incident. For emergencies, dial 704.330.6911. For non-emergencies, dial 704.330.6632. For parking assistance, dial 704.330.6117. You may also send a text message to 67283. Start your message with “CPCCTIP” then include your tip. For immediate assistance, call 704.330.6911.

The College seeks to promote a teaching and learning environment that is safe for all students, faculty, staff and visitors while on the premises. Contributing to the safety of the teaching and learning environment are controlled access to facilities and distribution of keys, the presence of both sworn law enforcement officers and security officers, and a heightened awareness of criminal activity through regular reporting and educational programs. Within these measures, the College complies with all the crime awareness education and reporting requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. Our Annual Security Report containing important information about safety, security and crime statistics at Central Piedmont Community College is available at www.cpcc.edu/college-security.

Counseling and Advisement (Integrated Counseling & Advisement Network, iCAN)

To foster total student development, CPCC operates an integrated counseling and advisement system, that includes counselors, academic advisors, faculty advisors and staff. Assistance is provided in the areas of academic, personal and career counseling; academic assessment and advising; and high school matriculation.

Academic advisors provide professional guidance services for students as they begin their journey at the College. Assistance is provided to help students with appropriate placement, course selection and in understanding institutional policies and procedures. Advisors also work with students during times of transition, providing help when students re-enter college after time away or when they want to change their program of study. Transfer Resource Center advisors dedicated to assisting students who wish to transfer to four-year colleges or universities are also available. Academic advisors assist students in developing individualized educational plans, reviewing college options, setting goals and other activities to facilitate the transfer process.

Counselors serve as an integral part of the teaching and learning process. In addition to providing academic advising, counselors assist students in exploring alternatives, developing goals, learning new strategies and designing a specialized academic success plan for goal achievement. The counseling staff also help students deal with issues that adversely affect their persistence through the Personal Counseling Assistance Program (PCAP). Counselors offer free, confidential and professional counseling to students facing personal concerns that may hinder their progress. Medical or agency referrals are provided when appropriate. Students are encouraged to schedule appointments, but walk-in times are available. Call 704.330.6433 for more information.

Faculty advisors play a significant role in helping students maintain satisfactory progress in programs of study. Advising is an essential part of a student’s persistence and success. Assistance is provided in program planning, course selection and scheduling. Online assistance is available through the virtual Office of Counseling and Advisement Services.
Students may access the iCAN website and talk with a counselor or academic advisor concerning specific advising issues. Academic advising at CPCC is an integral part of the mission of the College that is educating students for life. The College is committed to making our advisement system an effective, caring, supportive and accessible service for all students. The counseling and advising process helps students realize the educational benefits available to help them better understand themselves and learn to use various resources in attaining their career and life goals. The iCAN promotes student success by helping students help themselves. For additional information, call 704.330.6443 or visit online at www.cpcc.edu/ican.

CPCC Broadcasting

This year, CPCC celebrates our one-year anniversary of acquiring WTVI PBS Charlotte, home to high quality, award-winning, commercial-free programming which educates, inspires and entertains. PBS Charlotte reaches more than 1.1 million households across its 13-county service area in both North and South Carolina. PBS Charlotte does more than just broadcast fabulous local and national programs. Its educational outreach literacy program serves more than 18-thousand at-risk children. Nearly 2,000 parents and early childhood professionals have participated in more than 600 workshops and more than 7,000 disadvantaged children across our region received free new books thanks to this service of CPCC. For more information, visit www.pbscharlotte.org (http://www.pbscharlotte.org).

PBS Charlotte regularly has new exciting initiatives underway to greater serve our region. Please check out our program listing http://www.wtvi.org/tv-schedule/ for more details.

WTVI PBS Charlotte also produces high quality content for CPCC’s cable channel. Time Warner Cable Channel 17 plays host to signature programs like Charlotte: A City of International Success, Charlotte Arts, Charlotte Cooks™, Great Ideas, Job Ready, Perfiles Latinos de Charlotte and our regional Trail of History show. All of these shows are available on demand at www.youtube.com/cpcctv.

PBS Charlotte supports the College’s community service outreach goals, but also its commitment to learning. The station offers an exciting behind the scenes 10-week television course for aspiring students interested in public media. For course information call 704.330.6703.

Disability Services

Disability Services provides accommodations for students with disabilities. Students must self-identify and provide the appropriate disability documentation to be eligible for services. Disability Services are available to students with a hearing, learning, physical, medical, visual, or psychological/psychiatric disability. Students with temporary disabilities may be eligible for services. Students interested in services should visit www.cpcc.edu/disabilities for learn more about disabilities. You may also call 704.330.6621, TTY 704-330-6230.

Disability Documentation

Students with a disability must submit appropriate documentation to Disability Services. The student’s documentation will be reviewed prior to receiving services. Official documentation may include a comprehensive psychological, vocational rehabilitation evaluation and/or school or medical documentation. The type of documentation required will vary according to the student’s disability.

Procedures for Services

Once Disability Services has received and reviewed a student’s documentation, Disability Services will contact the student through their CPCC email account to set up an initial meeting with a Disability Services counselor. At that time, the counselor will discuss appropriate accommodations, explain Disability Services procedures and completed needed forms. Classroom accommodations cannot be put into place until appropriate forms are signed by the counselor and student.

Academic Accommodations

In order to guarantee timely accommodations, students must meet with counselors serving students with disabilities prior to the start of the semester. The counselor determines the necessary academic accommodations based on the student’s documentation. The Disability Services counselor facilitates providing accommodations to students with disabilities.

Confidentiality

In accordance with the requirement of the Federal Family Education Rights and Privacy Act (FERPA), Disability Services protects each student’s right to privacy by limiting access to disability records. Disability Services does not disclose information to professors, staff, outside funding sources, or a student’s parents unless the student has provided a signed and dated release.

Interpreting Services

One of the most critical components of any program for deaf and hard of hearing students is interpreting services. The success of a student’s educational experience is dependent on the quality and availability of interpreting services. The College employs qualified, certified and licensed interpreters who are skilled in using American Sign Language. Interpreters function as a communication channel between the student, instructor and classmates. Deaf and hard of hearing students may request interpreting services for organizations and activities sponsored by the College. Certain schedule adjustments may be necessary in order to provide interpreting services for students who request them. Interpreting service is provided upon referral by counselors assisting students with disabilities.

Counseling Services

In conjunction with other CPCC counselors, counselors working with students with disabilities will provide individual, vocational and academic counseling to eligible students. The Disability Services counselors are the facilitators for assisting faculty and staff in providing accommodations to students with disabilities.

Attendance

Classroom attendance is not determined by the Disability Services office. Class attendance is at the discretion of each faculty member and is usually explained in the course syllabi. No right or privilege exists that permits a student to be absent from any given number of class meetings. Absences from class for valid reasons (including disability-related medical situations) are excused only by the instructor.
Full-Time Academic Status

Based on the nature of the disability, a student may not be able to take a full course load of 12 credit hours in the fall and spring semesters or nine credit hours in the summer semester. The Disability Services counselor may recommend a reduced course load for specific student's with disabilities.

Tutorial Services

The College provides tutorial services as a tool for enhancing student success. The Disability Services Counselor will refer the student for these services to the Academic Learning Center and/or the office of Student Support Services. It is the student's responsibility to pursue tutorial services.

eLearning

eLearning represents an innovative means of addressing the complex range of personal, professional and lifelong learning challenges and goals of today's learners. The College offers a variety of programs that can be completed fully online and some programs that can be completed primarily online but have some traditional face-to-face components. The College offers a wide array of courses that can be taken fully online.

eLearning supports three course delivery models. Traditional instructor-led courses have been extended to include virtual learning spaces where course content and opportunities for interacting with the instructor and other class members enhance the classroom experience. There are blended or hybrid courses where some portion of the class or its activities are divided between synchronous (real time) and asynchronous (any time) elements. There are eLearning courses where all elements of the course experience and content are administered virtually or fully online.

Students who take eLearning courses will find a full complement of support services and resources designed to foster engagement, excellence and ultimately success. They include but are not limited to the following:

- Admissions and Registration
- Bookstore Services
- Career Services
- Academic Advising
- Assistance with Financial Aid
- Library and Media Services
- Testing and Assessment

For more information regarding eLearning program offerings, visit www.cpcc.edu/distance.

For technical assistance, students may call the CPCC ITS Helpdesk at 704.330.5000.

Global Learning

CPCC seeks to provide opportunities for students, faculty and staff to become globally competitive, competent and aware. We encourage faculty to globalize the curriculum, host speakers on international topics and support participation in international community events. Global learning provides an outstanding opportunity to broaden one's perspective and boost language skills, which is why the College offers short-term international learning projects and experiences for students in more than 10 countries. Students are also exposed to cultures through the “Global Classroom, a virtually equipped class that connects CPCC students with classes around the world. Participants become more competitive in today’s global marketplace as they develop cross cultural skills and learn to appreciate other ways of doing things, other people and other lands. Programs abroad have included language immersion in Costa Rica, Canada, and Germany; business courses in China and Brazil; and liberal arts in Italy, Greece and the United Kingdom.

A full year work-study scholarship to Germany is also possible through a liaison with the Congress Bundestag Youth Exchange. For more information, contact the Director of Global Learning at 704.330.6167, visit www.cpcc.edu/study-abroad. The Office located is located in the Overcash Building, Room 303.

International Student Services

The International Programs and Services office is committed to supporting the academic and personal growth of CPCC’s international students who are on an F-1, student visa. Whether you need assistance with admissions, immigration related issues, resources at the College or want to learn more about the Charlotte community, we are here to help.

For more information, visit www.cpcc.edu/international_services.

Library Services

Library Services at Central Piedmont Community College seeks to support and strengthen teaching and learning by providing access to student-centered and learning-centered resources, services and environments that lead to life-long educational development.

Library Services is comprised of seven full-service libraries on six college campuses. The library’s website serves as the gateway to all library resources: online resources, print books, periodicals, media, scholarly journals, e-books, audio-books and videos. Resources are available on and off campus and are shared among the campus libraries through courier, fax, email and the Web, for the convenience of all users. The library is accessible 24/7 at www.cpcc.edu/academics/library-and-research.

The College's libraries provide library instruction, interlibrary loan, reserve service, group study facilities, presentation support, 24/7 integrated IM/webchat reference service and in-person and virtual research assistance. A comprehensive description of the library, its locations, array of resources, and services can be found on the library website at www.cpcc.edu/library.

Cato Campus Library
8120 Grier Road
Charlotte, NC 28213
704.330.4818

Harris Campus Library
3210 CPCC Harris Campus Drive
Charlotte, NC 28208
704.330.4618

Cato Law Library
8120 Grier Road
Charlotte, NC 28213
704.330.2722 ext. 7819
and your award letter may be viewed on your “My College” account (http://www.fafsa.ed.gov) once your file is complete. You will receive an email notification stating that you have been awarded priority dates, you must be prepared to pay for tuition, fees and books. If you submit your financial aid application after the established priority dates are identified for each semester. If you submit your financial aid application after the established priority dates, you must be prepared to pay for tuition, fees and books. If you are late, you will need to pay for your tuition and books; then if you qualify for financial aid, a deposit on your CPCC Higher One Debit Card will be issued to you later in the term.

What if I didn’t meet the above deadlines?

You are strongly encouraged to apply for financial aid. Your application will be accepted and processed; however, it may not be processed in time for you to use financial aid to pay for tuition or books. If you are late, you will need to pay for your tuition and books; then if you qualify for financial aid, a deposit on your CPCC Higher One Debit Card will be issued to you later in the term.

Activate Your CPCC Email Account

The College's official means of communicating with students is through your CPCC email. Your CPCC email address is your CPCC Login@email.cpcc.edu with 7.5 MB of storage space available to you with no spam or advertisements. Please activate your account. All communication from the Financial Aid/VA Office will be emailed to your CPCC email address.

Eligibility Requirements

A student will need to meet the following eligibility requirements to receive federal and/or state assistance:

• Be enrolled or accepted for enrollment in an eligible program
• Have a high school diploma or GED
• Be a U.S. citizen or eligible non-citizen
• Not be a member of a religious community that directs the program of study or provides maintenance
• Be registered with the Selective Service (males only)
• Not be in default on a Title IV loan
• Not have borrowed in excess of Title IV loan limits
• Not owe a repayment on a Title IV grant or scholarship received for attendance at any institution
• Maintain satisfactory academic progress
• Not be enrolled concurrently in an elementary or secondary school
• Provide a valid social security number
• Not have a federal or state drug conviction which may disqualify a student for Title IV funds
• Incarcerated students are ineligible for Title IV funding
• Be subject to an involuntary civil commitment after completing a period of incarceration for a forcible or non-forcible sexual offense is ineligible to receive a Federal Pell Grant

How to Apply

Students can apply for federal aid by completing the Free Application for Federal Student Aid (FAFSA) available online at www.fafsa.ed.gov. If Web access is unavailable, you can attend a FAFSA workshop held each Friday. Check with the Financial Aid Office for time and location. An electronic pin number, received from the U.S. Department of Education,
should be used to electronically sign the Free Application for Federal Student Aid. Parents of dependent students will also need a PIN number.

Please include Central Piedmont Community College’s Title IV Code #002915 and address on the FAFSA. The number to call concerning application status, requesting a duplicate student aid report, or adding another college is 1.800.4FED.AID.

To receive priority for all types of aid, students should complete the application process by July 1 if planning to begin in the Fall Semester.

A Student Aid Report (SAR) will be returned to the student within four to six weeks from the time the FAFSA is submitted. Applicants should review the SAR carefully and make all corrections. If no corrections are necessary, the SAR should be retained and financial aid will be awarded based on this information. The Financial Aid Office will receive the student’s record electronically from the Federal Processor.

**Verification:** The Financial Aid Office is required by the U.S. Department of Education to verify files for applicants selected for verification by the Federal Processor. In addition, when corrections are made to the student aid report, the application could then be selected for verification by the Federal Processor, even though it was not previously chosen. The Financial Aid Office reserves the right to request verification of additional files with questionable or conflicting information. The verification process requires a signed copy of the student’s spouse’s and/or parent’s (whichever is applicable) IRS Tax Transcript, a signed Verification Worksheet (obtained on the student’s MyCollege Account if independent) and any other documentation requested before awards can be finalized.

Changes from the US Department of Education allow us to simplify our verification process for many students. If you and your parents are able to retrieve your IRS data directly from the IRS to your FAFSA, your chances of being selected for verification are greatly reduced.

**What do you need to do to make this happen?**

- When you complete or correct your FAFSA online and answer that you have completed your tax return, you will be given a set of questions to determine if you can use the IRS Data Retrieval Tool.
- If you can answer “None of the above”, you will be directed to the Retrieval Tool.
- To successfully retrieve your IRS data, wait two weeks after you have filed electronically or eight weeks if you filed a paper return.
- Do not alter the data identified as “Transferred from the IRS.”

**What if you are selected for verification?**

- If you used the Retrieval Tool, we will not request your tax information.
- If you were not able to use the Retrieval Tool or changed the data that was transferred, we will need an IRS Tax Transcript from the IRS. **We can no longer accept a copy of your tax return unless you filed a Puerto Rican or foreign tax return.**
- You will also need to complete the Verification Worksheet and any other documents requested before your award can be finalized.
- Document tracking emails are sent to a student’s CPCC email account requesting all necessary verification documents be submitted to the Financial Aid Office within two weeks.

Additional information can be accessed at http://www.cpcc.edu/financial_aid/faq/verification.

**Special Circumstances:** If the student and/or family have unusual or extenuating circumstances that are not reflected on the Free Application for Federal Student Aid (FAFSA), he or she should contact the Financial Aid Office. Documentation is required.

**PIN Information**

The PIN serves as your electronic signature and provides access to your personal information in various U.S. Department of Education systems. It’s like the Personal Identification Number (PIN) that you get from your bank that enables you to access your account. Anyone - including parents of dependent students - who has a valid Social Security Number and is a U.S. Citizen or eligible non-citizen may apply for a PIN. Because you can use your PIN to sign your financial aid application, you should keep it in a safe place. Do not give or entrust it to anyone, even if the person or organization is helping you fill out your FAFSA.

Each year that you apply for financial aid you will use your PIN to access and electronically sign your FAFSA, saving time and effort in the process. You and your parents do not need to apply for a new PIN from one year to the next. The PIN stays with you.

If you, or your parents, do not have a PIN, we strongly recommend you apply for one now. You can apply at the U.S. Department of Education’s PIN site, www.pin.ed.gov (http://www.pin.ed.gov), by selecting Apply for a PIN. Or both Students and Parents of Dependent students who have not previously applied for a PIN are able to apply for a PIN within the FAFSA application. Once you successfully complete a request, the Department of Education will email or mail you a PIN, depending on whether you and your parent provided them with an email address. It will take approximately 1-3 business days after you request your PIN for you to receive an email notification with instructions on how to retrieve it electronically, or 7-10 days to receive it in the mail via the U.S. Postal Service.

Visit the U.S. Department of Education’s PIN site. Some of the online options available are:

- Apply for a PIN for the first time
- Check the status of a PIN application
- Request a duplicate PIN if it has been lost or forgotten
- Request your PIN be changed if it has been compromised
- Update your PIN e-mail and mailing address
- Enable/Disable your PIN

**Important Note:** A PIN that is selected or viewed instantly online or is sent to you in an email is considered to be conditional until your information is verified with the Social Security Administration (1-3 days from the date you first apply). Before verification is received from the Social Security Administration, you may sign your FAFSA with it, but nothing else. Once the federal processor completes this verification, you will be able to use your PIN for other purposes (such as correcting your SAR or accessing other Federal Student Aid websites).

**Transfer Students**

Students transferring to Central Piedmont Community College will need to request a duplicate Student Aid Report: call 1.800.4FED.AID; include CPCC’s Title IV school code 002915. You can also add CPCC’s school code at: www.fafsa.ed.gov (http://www.fafsa.ed.gov)/ Make Corrections to a Processed FAFSA. It is the student’s responsibility to notify the Financial Aid Office if he/she has attended another college during the same financial aid award year. A student cannot receive financial aid at two colleges during the same semester.
Study Abroad
Students who currently receive financial aid and participate in a CPCC Study Abroad option may be eligible to receive financial assistance for their academic credits. Students who plan to study abroad should apply for financial aid in the same manner as students who will be on campus. Financial aid is not available for travel and lodging expenses or for additional course fees abroad etc. Partial scholarships for these expenses may be available through the Study Abroad Office.

CPCC offers summer Study Abroad as part of its Foreign Language Program. Full academic foreign language credits are awarded. Additional credits may be earned via an approved Independent Study Program in another field. Immersion language courses are the main thrust of our study abroad program. Study Abroad offers French in France, German in Germany and Spanish in Mexico or Costa Rica (varies). Please find details at www.cpcc.edu/study-abroad.

Federal Student Financial Aid

Penalties for Drug Law Violations
Under the Federal Higher Education Opportunity Act (HEOA), students who are convicted for any offense related to any federal or state law involving the possession or sale of illegal drugs will lose eligibility for any type of Title IV, HEA grant, loan, or work-study assistance. When filing the Free Application for Federal Student Aid (FAFSA), students are required to report if they have ever been convicted of any drug-related offense involving the possession or sale of illegal drugs. Failure to answer this question will automatically disqualify the student from eligibility for federal student aid programs. Knowingly providing false or misleading information on the FAFSA is considered a crime and can carry a fine of up to $10,000 or imprisonment. If a student is convicted while receiving assistance through any federal student aid program, the student must notify the College’s Financial Aid Office immediately. The student will be ineligible for further aid and required to repay all aid received after the conviction.

FERPA Guidelines for Inquiries
The Financial Aid/Veterans Affairs Office will communicate to students using their CPCC email account. Due to the Family Educational Rights and Privacy Act (FERPA), we are only able to answer general questions via email unless the student uses their CPCC email address and includes their student ID number. Due to confidentiality requirements described in FERPA regulations, we cannot disclose information to parents. Students may access their “MyCollege” account to obtain information regarding their grades, financial aid awards and student account.

Financial Aid Programs

- Federal Pell Grants
- Federal Supplemental Educational Opportunity Grant
- Federal Work-Study
- Complementing Academic Experience
- Meeting Professional Standards
- America Reads/America Counts/Community Service

- Scholarships
- Loans
- Awards
- Programs/Courses Ineligible for Financial Aid
- Return to Title IV Funds Policy
- Financial Aid Satisfactory Academic Progress (SAP)
- Warning, Probation on an Appeal & Suspension
- Appeals

Federal Pell Grants
The Federal Pell Grant, which does not have to be repaid, is a federal program designed to provide financial assistance to undergraduate students who demonstrate a financial need to attend college. The U.S. Department of Education uses a standard formula, established by Congress, to evaluate the information reported on the Free Application for Federal Student Aid (FAFSA). The formula produces an Expected Family Contribution (EFC) number. The Student Aid Report contains the EFC number which determines eligibility. The Federal Pell Grant award amount depends on the student’s EFC, the student’s cost of attendance, whether the student is full-time or part-time and whether the student attends school for a full academic year or less. Students will need to be enrolled in an eligible curriculum program consisting of at least 16 credit hours in length. Students with bachelor’s degrees are not eligible.

Federal Supplemental Educational Opportunity Grant
A Federal Supplemental Educational Opportunity Grant (FSEOG), which does not have to be repaid, is for undergraduates with exceptional financial need – that is, students with the lowest Expected Family Contributions (EFC’s) – and gives priority to students who receive Federal Pell Grants.

The Federal Supplemental Educational Opportunity Grant program is a campus-based program administered directly by the Financial Aid Office. The amount of aid awarded depends on the student’s financial need, on the amount of other aid the student receives and on the availability of funds. Students with bachelor’s degrees are not eligible.

Federal Work-Study
The Federal Work-Study (FWS) program utilizes federal funds to provide part-time employment for undergraduate and graduate students with financial need to help meet their educational expenses. Students with bachelor’s degrees are eligible. Students who are enrolled at least half-time may work an average of 15 to 20 hours per week. FWS employment is determined by the student’s total financial need, the student’s class schedule, the student’s credit hours of enrollment and the student’s academic progress per term.
Awarded FWS funds are limited to availability of positions, funds and completion of the entrance/interview process. There are no term limitations on earnings, provided annual limits on the student’s award letter are not exceeded.

All available FWS positions will be advertised on the CPCC Human Resources website at www.cpcc.edu/humanresources/employment.

Students are paid each month and the amount paid is according to the position and the number of hours worked.

Complementing Academic Experience
Employment complements a student’s academic experience by providing skill development and networking opportunities relevant to the student’s major and/or career field of interest. It is the policy of the College to employ students part-time, and not interfere with students’ academic pursuits or displace full-time employment opportunities.

Meeting Professional Standards
The College’s student employment programs are subject to and will be administered in accordance with applicable Federal and State laws and statutes governing employment practices and strive to follow the professional standards of the National Student Employment Association.

America Reads/America Counts/Community Service
America Reads/America Counts/Community Service are Federal Work-Study programs offered in the fall and spring semesters. These programs allow CPCC students to partner with local elementary schools and nonprofit agencies in an effort to increase children’s literacy and outreach to the community. The students gain valuable work experience by being involved in service activities that support literacy and community outreach.

America Reads, a national campaign that was initiated in 1997, challenges every American to help our children learn to read well and independently by the end of elementary school. Nationwide, there are approximately 1,200 colleges and universities participating in the America Reads Challenge.

Building on the success of the America Reads Challenge, America Counts was initiated in July 1999 as an effort to improve student achievement in mathematics and assist students in mastering challenging mathematics, including the foundations of algebra and geometry, by the end of the 9th grade.

The Federal Work Study/Community Service Program is an opportunity for students to work in a not-for-profit organization while earning their Federal Work Study money. Community service jobs are in fields such as health care, child care, literacy training, education (including tutorial services), welfare, social services, transportation, housing and neighborhood improvement, public safety, crime prevention and control, recreation, rural development, and community improvement, support services to students with disabilities, and activities in which students serve as mentors for such purposes as tutoring, supporting educational and recreational activities, and counseling, including career counseling.

What are the benefits of taking a community service position?
- You can help improve the quality of life for members of your community.
- You can earn your Federal Work Study funds.
- You will gain solid work experience in areas such as public service, psychology, education, administration, etc.
- You will acquire professional contacts in your community and school as well as networking opportunities.
- You can make a difference.

The America Reads Challenge (and the Community Service) Federal Work Study program is a strong example of how students both give to and receive from the community. The program promotes access to college by helping students enhance postsecondary education costs while offering these students the opportunity to pursue a community service. -- Richard W. Riley

For more information about these programs please contact Service-Learning at 704.330.6445 or service.learning@cpcc.edu.

Scholarships
Scholarships are provided through Central Piedmont Community College’s Foundation and the generosity of industries, businesses, professional organizations, civic clubs and individuals. A scholarship review committee determines the recipient for those scholarships awarded by the College.

The scholarship program consists of two types of awards: merit-based scholarships and need-based scholarships. Scholarships are also awarded on a competitive basis applying the following criteria: academic excellence, achievement, leadership qualities, need or other criteria as stipulated by the donor.

Awards are usually restricted to tuition assistance and require the recipient to maintain a minimum grade point average to continue the scholarship. Each scholarship is awarded for one academic year beginning with the fall semester. Students should reapply each year by completing the Free Application for Federal Student Aid (FAFSA) at www.fafsa.ed.gov (http://www.fafsa.ed.gov). In addition, a scholarship application needs to be completed each year.

Applications will be accepted until all funds are awarded. Students are encouraged to apply early. Contact the Financial Aid Office or visit CPCC’s financial aid website at www.cpcc.edu/financial_aid/assistance/scholarships deadline dates and a detailed listing of scholarships.

Donors of scholarships should direct contributions to the CPCC Foundation, Incorporated, which supports and supplements educational programs, projects and scholarships at CPCC for which funds from other sources are unavailable or inadequate. Questions regarding the establishment of scholarships and requests for other scholarship donor-related information should be directed to the CPCC Foundation at 704.330.6869. The CPCC Foundation is a 501(c)(3) organization eligible to receive tax-deductible contributions.
State Programs

College Foundation of North Carolina, Inc.

Whether you’re interested in general information on college costs and requirements, or specific information on scholarships, or a tax-advantaged savings program, this is the place to start: www.cfnc.org (http://www.cfnc.org).

North Carolina Community College Grant

The North Carolina Community College Grant is a need-based grant established by the North Carolina Legislature. The North Carolina State Education Assistance Authority, through College Foundation, Inc., makes award determinations.

The North Carolina Community College Grant provides funds to help meet the educational costs of North Carolina residents attending community colleges.

To be eligible a student must:

- be admitted to a curriculum program and be enrolled for at least six credit hours per semester;
- be a North Carolina resident;
- have completed and submitted the Free Application for Federal Student Aid (FAFSA);
- qualify for the grants based upon a valid Expected Family Contribution (EFC) calculation under Federal Methodology and the program’s recognized “required educational expenses” for attending a North Carolina community college;
- meet the satisfactory requirements of CPCC’s Financial Aid Office and the College;
- meet all other eligibility requirements for Federal Student Aid.

North Carolina Education Lottery Scholarship

The North Carolina Education Lottery Scholarship (NCELS) was created by the 2005 General Assembly to provide financial assistance to needy students attending eligible colleges and universities located within the state of North Carolina.

Applicant must:

- be admitted to a curriculum program and be enrolled for at least six credit hours per semester;
- be a North Carolina resident;
- have completed and submitted the Free Application for Federal Student Aid (FAFSA);
- qualify for the grants based upon a valid Expected Family Contribution (EFC) calculation under Federal Methodology and the program’s recognized “required educational expenses” for attending a North Carolina community college;
- meet the Satisfactory Academic Progress requirements of CPCC’s Financial Aid Office and the College;
- meet all other eligibility requirements for Federal Student Aid.

Applicants must complete the Free Application for Federal Student Aid (FAFSA) which is also used to qualify for federal student aid and institutional scholarships.

North Carolina Reach Scholarship

The Child Welfare Postsecondary Support Program, also known as NC Reach, was established by the 2007 North Carolina General Assembly to provide funding for college students who have either aged out of North Carolina public foster care or whose adoption from North Carolina public foster care was finalized on or after their twelfth birthday. Applicants will need to meet the following eligibility requirements:

- By age 18 – 25, students who either aged out of North Carolina public foster care or whose adoption from North Carolina public foster care was finalized on or after the student’s twelfth birthday.
- Enroll at either a North Carolina Community College or one of the 16 constituent institutions of The University of North Carolina System, on at least a half-time basis; pursuing an undergraduate degree, diploma or certificate.
- Make satisfactory progress toward the completion of undergraduate study.
- Comply with registration requirements for military service unless they are exempt from registration.
- May not be in default or owe a refund under any federal or state loan or grant program.

Award amounts vary. Benefits are determined based on federal and state grants and scholarships, including the Pell Grant, the Education Training Voucher and state scholarships such as the North Carolina Education Lottery Scholarship which are applied first to the predetermined costs of attendance at the qualifying school. The NC Reach Scholarship will pay the balance of the predetermined costs of attendance. Legitimate student loans which were incurred after July 31, 2007 for costs of attendance for qualifying students are also eligible for repayment through this program.

To apply for this program, please visit www.ncreach.org/APPLY-FOR-FUNDING.51.0.html (http://www.ncreach.org/apply). Additional information may be obtained by calling the NC Reach team at 800.585.6112 or by clicking the “Contact Us” link on the NC Reach homepage (www.ncreach.org (http://www.ncreach.org)).

Back to Top

Loans

William D. Ford Federal Direct Loan Programs

Direct Loans are low-interest loans for students and parents to help pay for the cost of a student’s education after high school. The lender is the U.S. Department of Education (the Department).

With Direct Loans, you:

- borrow directly from the federal government and have a single contact—you loan servicer—for everything related to repayment, even if you receive Direct Loans at different schools;
- have online access to your Direct Loan account information via your servicer’s website;
- can choose from several repayment plans that are designed to meet the needs of almost any borrower, and you can switch repayment plans if your needs change.

Federal Direct Stafford Loan Program (Subsidized)

This is a federally financed and subsidized student loan made based on your financial need and other specific eligibility requirements. Undergraduate students may borrow up to the cost of attendance minus
the expected family contribution and any other aid received. You may not borrow more than the maximum annual or aggregate amount. The federal government does not charge interest on these loans while you are enrolled at least half-time, during a six-month grace period, or during authorized periods of deferment.

**Federal Direct Stafford Loan Program (Unsubsidized)**

This is a federally financed student loan made to undergraduate and graduate students who meet specific eligibility requirements. You may borrow up to the cost of attendance minus any other financial aid received and may not borrow more than the maximum annual or aggregate (lifetime) amount. Interest is charged throughout the life of the loan. You may choose to pay the interest charged on the loan or allow the interest to be added to the loan principal.

**Federal Direct PLUS Loan Program**

Allows parents of undergraduate students who do not have an adverse credit history to borrow up to the full cost of education minus other financial aid. Interest accrual begins on the date of the first loan disbursement. The first payment is due within 60 days after the final loan disbursement.

**Private or Alternative Loans**

A growing number of private lenders are marketing private loans directly to students. These loan programs are set up to totally circumvent the financial aid office. Legitimate lenders should be following basic standards in their dealings with families.

The Department of Education has ruled that these loans must be counted as a resource in determining a student’s eligibility for federal financial aid funds. If we discover you have received one of these loans, we will have to adjust your financial aid award to incorporate this loan into your package. This would normally result in the loss of “better” aid funds (need-based grants and scholarships). Please speak to a financial aid representative before applying for a private or alternative loan. We strongly encourage families to fully utilize all federal aid programs before turning to this source of funds.

**Awards**

Students should have their financial aid package completed before registration or come prepared to meet their expenses and pay tuition/fees within the designated due dates. If not paid within the designated due dates, your registration will automatically be canceled.

The Financial Aid Office reserves the right to adjust a financial aid package when an over-award is made. Students are required to notify the Financial Aid Office if any additional gift aid assistance is received for educational expenses. Furthermore, the Financial Aid Office will void any award if it is determined that the student provided incorrect or false information on the financial aid application. All financial aid awards are subject to change if the information on which they were based changes, federal regulations require a change, or an over-award occurs.

Central Piedmont Community College’s Financial Aid Office adjusts student awards throughout the drop/add period. After the drop/add period, no awards are adjusted unless a “never attended” or a “complete withdrawal” is received from the instructor.

The award letter is based on full-time enrollment for an entire year. Full-time status consists of enrollment in a minimum of 12 credit hours. Three-quarter time status consists of enrollment in 9 to 11 credit hours. Half-time status consists of enrollment in 6 to 8 credit hours. Less than half-time status consists of enrollment in 1 to 5 credit hours. Any changes in enrollment status must be reported to the Financial Aid Office.

Financial aid awards cannot be automatically transferred from one college to another. Students need to have the results of the FAFSA released to the new college. All documents in the student’s financial aid file are the property of Central Piedmont Community College and cannot be released. In addition, financial aid cannot be utilized simultaneously at two or more colleges.

If any financial aid is remaining after charges are paid, the remaining funds will be transferred to the student’s Higher One Debit Card (usually within the first four weeks of class). If requested, a check can be mailed to your current address. It is important to keep your address, telephone number and email address updated. Changes in your personal information can be made at http://mycollege.cppcc.edu or in person at Student Records.

Any unclaimed refunds will be voided after 90 days. Funds can only be reissued BEFORE August 1 for the prior fiscal year award (July 1 to June 30).

**Why You May Have to Repay Part of a Grant**

Unlike loans, grants do not usually have to be repaid. However, there are two reasons why you may have to repay part of a Federal grant:

1. The amount given to you was more than you were eligible to receive (this is called an over-award). This can happen if the school makes an error when calculating your eligibility for financial aid, or if an audit of your financial records reveals that some of the information you provided was incorrect (for example, your income was higher than what you reported on your application for financial aid).

2. You withdrew early from the program for which the grant was given to you.

You may restore your eligibility for Title IV Federal financial aid by entering into an acceptable repayment plan with the Department. As long as you make the payments as agreed the grant-originated debt will not affect your eligibility for further aid. However, if you fail to make the agreed-upon payments, your eligibility will be permanently lost until the debt is paid in full.

Grant overpayment debts are not eligible for either consolidation or rehabilitation.

**Programs/Courses Ineligible for Financial Aid**

Diploma or certificate programs containing less than sixteen (16) semester hours are not eligible for Federal student aid. Although the Financial Aid Office will make every effort to monitor these programs, it is the responsibility of the student to assure acceptance into a program of at least sixteen (16) semester hours in order to be eligible for federal aid. In addition, Career Development, Continuing Education, course for which
clock hour/conversion

The determination of enrollment status (full, 3/4, 1/2, or less) is, by Federal regulations, different for the following four programs of study:

- Auto body - D60100 (http://www.cpcc.edu/financial_aid/fyi/1112-autobody-student-version)
- Collision Repair & Refinishing - D60130 (http://www.cpcc.edu/financial_aid/fyi/collision-conv-stud)
- Computer-Integrated Machining Technology - D50210 (http://www.cpcc.edu/financial_aid/fyi/computer-covn-stud)
- Dental Assisting - D45240 (http://www.cpcc.edu/financial_aid/fyi/dental-conv-stud)
- Electrical Electronics Technology - D35220 (http://www.cpcc.edu/financial_aid/fyi/electrical-covn-stud)

This determination of enrollment status is different because the programs have one or more courses that cannot be used toward a two-year degree program. Enrollment status determination for the above programs is determined by totaling for each course the clock/contact hours a student takes each semester. The total hours are then divided by 37.5 to obtain the converted credits. The converted credits are then used to determine the enrollment status. For a list of converted courses, check with the Financial Aid Office.

Less than Half-time Attendance

Federal regulations require a less than half-time budget calculation that is restricted to tuition, books and transportation for students who are enrolled less than half-time. If a less-than half-time enrollment status is a result of dropped or never attended classes, Federal Pell will be reduced and an over-award could occur. It is the responsibility of the student to satisfy any balance before receiving additional federal aid.

Return to Title IV Funds Policy

For Financial Aid Recipients

Federal regulations require recalculation of federal financial aid eligibility for students who withdraw, drop out, or are dismissed prior to completing 60 percent of an academic term. An example of the Return to Title IV Fund calculation is available in the Financial Aid/VA Office.

Recalculation is based on the percent of aid using the following formula:

Percent earned = Number of Days Completed Up to the Withdrawal Date - Divided By - The Total of Days In a Semester/Term. If the calculation results in an overpayment, the student will owe the balance to the College.

The student should come by the Financial Aid/VA Office to make payment arrangements on this balance. If the student fails to pay the debt to the College within 45 days of notification, the debt will be reported to the U.S. Department of Education as an overpayment. Federal eligibility is lost until the debt is paid or satisfactory arrangements are made with the U.S. Department of Education. Financial aid students should notify the Financial Aid Office before withdrawing.

According to federal regulations, students who stop attending their classes within a given term without formally withdrawing will have the Return to Title IV calculation calculated using the 50 percent point of the semester.

Financial Aid Satisfactory Academic Progress (SAP)

Financial Aid Satisfactory Academic Progress (SAP) is a set of standards for financial aid progress.

All financial aid recipients are required to meet satisfactory academic guidelines established by Central Piedmont Community College (CPCC) and financial aid standards of progress, pursuant to Federal regulations.

The intent of this policy is to ensure that students who are receiving federal and state financial aid are making measurable progress toward completion of a degree, certificate, or diploma program in a reasonable period of time and a reasonable number of credit hours attempted in their program of study. The policy looks at all credit hours attempted, not just those taken while receiving financial aid. All classes count.

Federal regulations require institutions of higher education to establish minimum standards of satisfactory progress for students receiving financial aid. Students are expected to achieve certain minimum levels of progress toward the successful academic completion of course requirements for a degree, certificate, or diploma. Progress is measured both qualitatively and quantitatively. To ensure that a student is making sufficient progress throughout their course of study, a maximum timeframe divided into increments is required. At the end of each increment (each semester), an institution must determine whether the student has successfully completed a minimum percentage of work toward his or her degree, certificate, or diploma for all increments completed.

This policy applies to those students applying for or receiving federal and state funds. To reasonably measure a student’s satisfactory academic progress toward completion of his or her degree, certificate, or diploma, the student’s total academic record will be evaluated regardless of whether or not they had received financial aid in the past.

As a recipient of federal or state financial aid, students have certain rights and responsibilities. Failure to fulfill any part of the agreement, as described, may result in the cancellation of a student’s award and the student may be responsible for repaying any received funds.

To be eligible for financial aid, students need to meet the following minimum guidelines:

**Qualitative Standard** - Cannot be suspended according to the College’s academic suspension policy. Maintain a cumulative grade point average of at least a 2.0 each semester as computed by the Financial Aid Office which may be different than your transcript GPA.

**Quantitative Standard** - Complete a minimum of 67 percent of cumulative credit hours attempted each semester (e.g. if the student has attempted 50 credit hours, the student needs to earn credit for at least 33 hours). The number of hours attempted is defined as the total cumulative number of credit hours in which the student is enrolled at the general 10 percent point of each term. The total number of credit hours earned is defined as the total cumulative number of credit hours from each term at CPCC in which
the student received a passing grade as noted on the student’s academic transcript.

**Maximum Time Frame** - Should complete program of study in a time frame not to exceed 150 percent of the published length of the program for full-time students. This will be measured in credit hours (e.g. If the academic program length requires 60 credit hours, maximum time frame cannot exceed 90 hours attempted). Transfer credit hours accepted from other institutions and evaluated in the student’s current program of study are included in the calculation of maximum time frame.

The Financial Aid Office will monitor satisfactory academic progress for all students receiving or applying for federal or state aid to ensure that they are making progress toward program completion. All programs will be reviewed for satisfactory academic progress at the end of each semester.

In order to measure a student’s satisfactory progress toward a degree, diploma, or certificate requirements, the student’s total academic record at Central Piedmont Community College will be evaluated whether or not the student received financial aid for the entire time of enrollment.

**Cumulative Credit Hours Attempted** - Cumulative credit hours attempted are defined as all credit hours attempted at CPCC, and all credit hours transferred from other institutions. Attempted credits include courses with grades of “A” through “F,” “W,” “I/A,” “I/B,” “I/C,” “I/D,” “P” or “I.”

**Cumulative Credit Hours Completed** - Credit hours successfully completed are defined as grades “A” through “D,” “I/A,” “I/B,” “I/C” “I/D” or “P.” Credit hours not successfully completed are defined as “F” or “W.”

**Audited Courses** - Credit hours taken for a grade of “audit” do not apply toward an associate degree, diploma, or certificate program. Therefore, credit hours with this designation are not included in determining enrollment status for financial aid or satisfactory academic progress. Students with changes in grade type of an “Audit” (AU) after the disbursement of financial aid will be reviewed for an enrollment status change. This change may result in a reduction of financial aid eligibility and a balance owed to the College.

**Incomplete Grades** - Courses with grades of “I” (Incomplete) will be considered as credit hours attempted and not completed. Students who have made arrangements with the instructor to complete required coursework are not required to re-register for the same class during a subsequent semester to complete the work. Any course carried forward to the next semester for completion will not be counted as part of the new semester enrollment status. If the “incomplete” grade resulted in a student being placed on financial aid probation or suspension, once completed, the student may appeal for an Incomplete Grade - Courses with grades of “I” (Incomplete) will be considered as credit hours attempted and not completed. Student who have made arrangements with the instructor to complete required coursework are not required to re-register for the same class during a subsequent semester to complete the work. A student may appeal for a re-evaluation of Satisfactory Academic Progress by submitting or faxing the Satisfactory Academic Progress appeal form to the Financial Aid office at the Central Campus. Should the grade become final before the review, the actual grade, credits attempted and credits earned will be used to determine if the student is making satisfactory progress.

**Cumulative Grade Point Average** - A student’s cumulative grade point average should meet the minimum standards of the institution according to their degree intentions. The minimum cumulative grade point average for graduation at CPCC is 2.0.

**Course Withdrawals** - Students who withdraw from classes officially or unofficially should understand how withdrawals affect their eligibility for financial aid as determined by this Satisfactory Academic Progress procedure. A “Withdrawal” will count as attempted, not completed, and will not count in the GPA calculation. Students who receive federal or state aid should be aware that repeated courses and grades of “W” will be considered in progress towards completion. Financial Aid recipients should discuss their possibility of withdrawing with a Financial Aid Officer before doing so.

**Withdrawals or all “F” Grades/Return of Title IV Funds** - Federal law states that if a student receives federal financial aid and withdrawals, stops attending or drops out of all of their classes before completing at least 60 percent of the semester, the student will have to return a portion of the federal aid that was received. Withdrawal (W Grade) from a class (es) is a non-punitive grade for cumulative and major GPA. Withdrawal grades are counted as an attempt for financial aid. Withdrawal grades are calculated in the financial aid GPA as a zero grade. The student will be billed for the amount to be repaid according to this policy. A student will be reported to the Department of Education for repayment and, until the balance is paid, the student’s records will be placed on hold prohibiting a student from receiving any further financial aid funds. If a student has tuition, fees or other outstanding institutional charges; registration, grades and transcripts will be placed on hold at CPCC until the debt is satisfied.

**Reducing enrollment during any semester can create serious consequences for financial aid recipients:**

- Satisfactory Academic Progress may be affected;
- In cases of complete withdrawals, students may be required to repay a percentage of financial aid received for that semester. (See Return of Title IV Funds).
- If a student purchases books using federal or state funds and never attends or earns a SAP status of “Unsatisfactory,” the student will be responsible for all charges.

**Developmental Studies Standards of Progress** - Financial aid recipients may take a maximum of 30 credit hours in developmental coursework. Developmental courses (designated by course numbers below 100, e.g. MAT 080) are included in the calculation of satisfactory academic progress. Students enrolled in developmental courses must receive grades of “A,” “B,” or “C” to remain in good standing. All credit hours attempted or completed are counted towards the 30 hours of developmental course work. Developmental hours in excess of 30 total semester credit hours cannot be counted towards enrollment status for federal and state grants or for the cost of attendance for any campus-based programs or loan programs.

**Repeat Courses** - In accordance to CPCC procedure, a student is permitted to retake courses. If you have already earned a passing grade for the course, you may only repeat the course once for financial aid purposes. The new grade earned from a repeated course will be used to determine eligibility. All hours attempted or earned will continue to be counted in the total hours attempted and earned.

**English as a Second Language** - If a student enrolls in ESL coursework while enrolled in an eligible program of study, he/she may also receive FSA program funds. In this case, ESL courses are treated as remedial (developmental) coursework and will count toward the student’s 150 percent timeframe. Developmental hours in excess of total semester credit hours cannot be counted towards enrollment status for federal and state...
grants or for the cost of attendance for any campus-based programs or loan programs.

Transfer students - Transfer students will be considered to be making satisfactory progress based on the number of credit hours accepted toward their current program of study. Transfer credits used toward program requirements will count when calculating completion rate. The transfer credits will be included as attempted and completed hours.

Change of Majors - Students who change their major are still responsible for maintaining satisfactory academic progress in accordance with the procedures as outlined. A review of satisfactory academic progress will be based on the student’s current program of study. A student changing from an associate program into a diploma or certificate program may lose federal and state eligibility immediately upon making the change.

Summer Session - Credit hours attempted and earned during the summer session are included in the calculation of Satisfactory Academic Progress. Full-time status is the same for summer session as it is for the fall and spring semesters (12 credit hours).

Warning, Probation on an Appeal & Suspension

Warning
Following the first term of failure to maintain cumulative satisfactory academic progress, a student will be granted one term to regain satisfactory academic progress. This term is known as the “Warning” term. Financial aid may be received during this Warning term.

Suspension
If the student is able to regain satisfactory academic progress with the courses completed successfully during his or her “Warning” term, the probation is lifted. If the student does not regain satisfactory academic progress, the student is placed on “SUSPENSION” and is no longer eligible for financial aid at CPCC until their cumulative progress is again satisfactory.

After Suspension
Other than when an appeal is granted for unusual or mitigating circumstances, a student can reestablish eligibility only by taking action that brings the student in compliance with the qualitative and quantitative components of the Financial Aid Satisfactory Academic Progress Standards including the maximum timeframe.

It is the student’s responsibility to be aware of his or her Satisfactory Academic Progress for financial aid eligibility. Each student is notified, via their CPCC email account, when placed on Warning or Suspension. Students may also view their satisfactory academic progress on their MyCollege account. If the student takes the necessary action that brings the student in compliance with the qualitative and quantitative components of the Federal Aid Satisfactory Academic Progress Standards, the Federal Pell Grant and other types of financial assistance (depending on availability of funds) are reinstated at the beginning of the next term of attendance, if otherwise eligible. Whether approved by the Financial Aid Appeals Committee or approved after one or more semesters of satisfactory progress, the student’s status upon reinstatement will be Probation.

Probation on an Appeal
When a student has been reinstated by an approved appeal by the Financial Aid Appeals Committee, the student will be placed on Probation.

Appeals
A student may appeal the termination of financial aid by obtaining an appeal form online at http://www.cpcc.edu/financial_aid/fyi/Forms %202013-2014 and indicating in writing: a) reasons why he or she did not achieve minimum standards, b) reasons why his or her eligibility should not be terminated, but reinstated. To initiate a financial aid appeal, the student should complete a Financial Aid Appeals Form, print their transcript evaluation and submit it along with required supporting documentation. In addition, the appeal needs to explain and document that the situation has been resolved. Appeals will be considered for circumstances that were out of the ordinary or out of your control. These may include:

1. Extended student/family illness or injury
2. Death of a relative
3. Change of degree program

Appeals will be reviewed, and the approval or denial notice will be sent to the student’s CPCC email address. If the appeal is approved, the student will be placed on an academic plan. To maintain eligibility, the student will need to meet all criteria of their academic plan.

Note: Students participating in the Federal Work Study program who are suspended from financial aid, cannot continue working until satisfactory academic progress is re-established.

Reviewing Your Appeal
An Appeal Committee will review a student’s appeal and documentation to determine if the student’s financial aid eligibility should be reinstated. The Financial Aid Office will contact the student through their CPCC email account with the decision once it has been made. Students may also review their satisfactory academic status on their MyCollege account.

Deadline
Appeals will only be reviewed for the current semester until 30 calendar days into the semester starting from the first day of the semester. Appeals submitted after this timeframe will be reviewed for the following semester.

Financial Aid/Veterans Affairs

Fraud and Forgery
The falsification and misrepresentation of information submitted for the purpose of receiving financial assistance or Veterans Affairs educational benefits will result in the cancellation of future assistance and repayment of all prior assistance received under false pretense. Signing someone else’s name and falsification of income information are examples of fraud and forgery. If a student purposely provides false or misleading information to receive federal financial aid/VA educational benefits, he/she will be in violation of the College’s rules of conduct and may face prosecution under state and federal laws.
Do you have questions about Financial Aid? Visit cpcc.financialaidtv.com (http://cpcc.financialaidtv.com)

TRiO Student Support Services

TRIO - Student Support Services is a federally-funded educational opportunity for first generation, low-income and/or students with disabilities enrolled at Central Piedmont Community College.

The Higher Education Re-authorization Act of 2008 established a series of programs to help low-income Americans enter college, graduate and move to participate fully in America’s economic and social life. The TRIO - Student Support Services program provides eligible CPCC students with the academic, social, and personal support needed to persist in college, graduate or transfer to a university. Services provided include tutoring, academic coaching, academic portfolio development, scholarship information and Financial Aid application assistance, financial literacy instruction, personal coaching, social support, TRiO Student Association, and much more. For more information about the CPCC TRiO - Student Support Services program, visit Central Campus, Central High Building, Room 117, call 704.330.6394 or 6532, or visit www.cpcc.edu/triosss.

Service-Learning Center

Service-learning is an innovative new teaching method that combines meaningful community service with academic instruction. Instructors who incorporate a service-learning component into their courses offer grade-based incentives for students to commit to service projects that are relevant to course learning objectives. National research data shows that student service-learners learn more about the course content, are more engaged in the classroom, explore career options and assume greater civic responsibility in their community. CPCC research data shows that service-learning has a high correlation with student success.

The CPCC Service-Learning Center serves as a liaison between instructors, students and the partnering community agencies that provide service opportunities for students. The Center is an on-campus resource for information about non-profit organizations. It is also a resource for faculty development and training opportunities related to service-learning teaching methods.

In addition to its curriculum-based service, the Service-Learning Center sponsors, supports and coordinates additional service opportunities for students outside the classroom. These programs include Service in Action!, Alternative Spring Break, Martin Luther King Challenge, environmental service projects supporting local initiatives, tutoring programs in local schools and volunteer fairs.

The Service-Learning Center is located on Central Campus in Overcash Building, room 257, and online at www.cpcc.edu/service-learning. Information is available in the Office of Student Life on each CPCC campus, or by calling 704.330.6445.

Small Business Center

The Small Business Center expands the College’s role in supporting small business owners and promoting entrepreneurship as a career option. It continuously develops innovative continuing education programs to help entrepreneurs start a business, grow a business, or keep pace with the ever-changing small business environment. The Small Business Center is a part of the statewide Small Business Center Network, a community college-funded initiative with a vision to foster and support entrepreneurship, small business training and economic development in local communities across the state.

Components of the Small Business Center include

- Continuing education courses (non-degree) focused on critical practical skills with classes ranging from start up and financing to marketing as well as a comprehensive certificate course in entrepreneurship. Courses focus on:
  - How to Start a Business
  - Business Plan Writing
  - Accounting with QuickBooks®
  - Funding and Financing
  - Nonprofit Essentials
  - Business Growth and Development
- Introductory seminars, workshops and forums to promote awareness and answer student questions
- Business Resource Center located on Central Campus with books, periodicals, videos and lending library collection, plus client touch-down computer research stations equipped with specialized business software
- Individual counseling to assist small business owners and to offer referrals for those who need additional skills or consulting
- Small business networking events to showcase small business owners, their services and products

For more information visit www.cpcc.edu/sbc or call 704.330.6736 or 704.330.4223.

Student Life

The Office of Student Life places priority on activities that support and enhance learning in the classroom, provide opportunities for student leadership development and honor the rich diversity at CPCC and in the surrounding community. Student Life staff are present at each CPCC campus.

The Office of Student Life serves as a center for campus programs and activities, a resource for student organizations and a focal point for leadership development opportunities. Student Life provides direction, guidance and resources for numerous CPCC student organizations, including the Student Government Association, Phi Theta Kappa International Honor Society and the Student Leadership Academy.

Activities sponsored or supported by Student Life include festivals, lectures, workshops, conferences, field trips, service projects, educational exhibits, live music and other co-curricular experiences. A full online calendar of Student Life events and activities can be found online at www.cpcc.edu/student_life.

For further information, visit the Student Life office on your campus or online at www.cpcc.edu/student_life, or call 704.330.6584.

Student Government Association

The Student Government Association (SGA) is the student organization which represents the interests of all CPCC students and is present at each CPCC campus. Membership is open to all currently-enrolled curriculum students. The Executive Committee is elected through the process outlined in the SGA Constitution each spring. SGA’s policies are
in keeping with those of the CPCC Board of Trustees, the administration and the laws of the State of North Carolina.

The SGA serves as: a student liaison with College administration; a resource for student clubs and organizations; a sponsor of annual festivals and service activities; and a recommending committee for the expenditure of student activities fees. The SGA president serves as a nonvoting member of the College Board of Trustees and SGA members frequently serve as student representatives on various College committees.

The Executive Committee of the SGA includes the president, vice-president, secretary, treasurer and public information officer. Applications for senator positions are accepted during spring and fall semesters and appointments are made by vote of the Executive Committee. Applications for senator positions and the SGA Constitution are available in the Student Life office on your campus, or online at www.cpcc.edu/student_life/sga. For more information about SGA, call 704.330.6584.

Student Clubs and Organizations

Student Life and the Student Government Association offer support, guidance and resources to numerous student clubs and organizations on all CPCC campuses. Some of these organizations focus on special interests and others are directly related to curriculum programs offered at CPCC. Although some clubs have membership requirements, no student organization at CPCC is allowed to discriminate on any grounds. A complete list of student clubs and organizations is available online at www.cpcc.edu/student_life.

Student Information

*CPCC Today* is your weekly student e-newsletter filled with useful information including important deadlines, policy changes, events at the College and student discounts. Find out about parking information, new scholarships and the array of CPCC resources available to you! Visit http://www.cpcc.edu/cpcc-today for this week’s issue or add the CPCC Today gadget to your student portal for easy access. For additional information, call 704.330.6231.

Family Resource Center at CPCC

The Family Resource Center located in Overcash, room 254 on Central Campus, serves CPCC students, staff and faculty on all six campuses. The Center’s mission is to enhance student success through healthy lifestyle programming and to support the CPCC community by identifying resources and services to assist with life challenges.

The Family Resource Center offers:

- A warm, welcoming environment with access to a variety of educational materials.
- Educational workshops and drop-in programs focusing on topics such as healthy eating, tobacco cessation, financial management, handling stress and domestic violence awareness.
- Support and encouragement to individuals dealing with major life events and assistance in identifying helpful resources both on and off campus.
- Referrals to agencies and programs that may be of further assistance.

The Family Resource Center also administers the state Childcare Assistance Grant to assist students with the costs of childcare.

For more information, please visit the Center online at www.cpcc.edu/student_life/frc or call 704.330.6246.

Transfer Resource Center

The Transfer Resource Center offers advising and support services to CPCC students who plan to transfer to a four-year college or university. Transfer advisors assist students with selecting courses at CPCC which align with their intended major at the four-year institution and facilitate a smooth transition into their program. To assist transfer students with gathering information about senior institutions, the office maintains a comprehensive website of resources and brings admissions representatives from four-year institutions to CPCC to talk with prospective transfer students through a program called Transfer Tuesdays. In addition to individual college visits, the office hosts a college transfer fair each fall semester, bringing colleges and universities from across North Carolina and the southeast to CPCC. The Transfer Resource Center office maintains a close relationship with UNC Charlotte and a UNC Charlotte admissions representative visits the Central and Levine Campuses each month to meet with students individually.

The Transfer Resource Center is located on the third floor of the Central High Building on Central Campus and appointments can be made by calling 704.330.6433. Transfer advisors are also available at the Levine Campus by appointment which can be made by calling 704.330.4267. For more information about the Transfer Resource Center and transferring students can visit www.cpcc.edu/ican/trc or email transfer@cpcc.edu.

Tuition and Fees

*(Tuition and fees are subject to change without notice).*

Tuition, required fees (student publications/activity fees, technology fees, lab fees and CAPS fees), optional student accident and student professional liability insurance fees and GED fees must be paid, or your registration will be cancelled. Cash, check, or credit card (MasterCard, American Express or Visa) are accepted.

**Tuition**

**Curriculum courses**

- Fewer than 16 semester hours: $71.50 per credit hour.
- 16 semester hours or more: $1,144 per semester.

**High School Diploma or GED courses**

- No tuition or fee.

**Out-of-State students**

**Curriculum courses**

- Fewer than 16 semester hours: $263.50 per credit hour.
- 16 semester hours or more: $4,216 per semester.

**High School Diploma or GED courses**

- No tuition or fee.

**G.E.D. Testing**

- A one-time $35 G.E.D. fee for students who take the battery of G.E.D. tests.
Corporate and Continuing Education:  
• Fees as published per class.

Student Publications/Activity Fee
• $23.50 per semester for 1 to 8 credit hours.
• $32.50 per semester for 9 or more credit hours.
• Maximum fee is $32.50 per semester.

The Student Publications/Activity Fee is used to support the Student Life Center and many co-curricular and extra-curricular programs. Among these are student government, student publications, clubs and organizations, intramural sports, educational activities, speakers and entertainers of various kinds.

Technology Fees
There is also a technology fee charge of $16 per term for Curriculum and $5 for Occupational Extension classes.

Lab Fees
Curriculum Lab Fees: $17 per lab hour with a $68 per term maximum.

Occupational Extension Lab Fees: $17 per class with a $68 per term maximum.

Campus Access Parking and Security (CAPS) Fee
The Campus Access, Parking and Security Fee (CAPS Fee) will be charged to curriculum and Corporate and Continuing Education students who attend classes at any College campus. Revenues collected from this fee will be used to pay costs of campus security and parking lot rental and maintenance at all CPCC campuses and centers.

The CAPS Fee will cost $66 per semester for curriculum students enrolled in eight semester hours or less, $88 per semester for curriculum students enrolled in nine semester hours or more, and $12 per class for Corporate and Continuing Education students. For details about the CAPS Fee, visit the website at www.cpcc.edu/caps_fee.

Forensics Fee
This fee will only be charged to forensics classes. $50 per class.

Applied Music Study Fee
This fee will only be charged to music classes. $200 per class.

Returned Check Policy
All returned checks are subject to a processing fee of $25. This fee will also apply to credit card payments not accepted and returned by a financial institution. This fee along with the original amount of the check or credit card amount is due within five (5) business days after official notification from the College. These amounts are payable only by the cash or money order at any Business Office location. A hold will be placed on all student records until acceptable payment has been received.

Refund Policy
The North Carolina Community College/System establishes the refund policy and is subject to change.

Curriculum Classes
All student curriculum refunds will be issued on a Higher One debit card.

• All tuition will be systematically refunded by the College for any class canceled by the College.
• 100 percent of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the academic semester.
• 75 percent of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the academic semester through the 10 percent point of the semester.

PLEASE NOTE: If dropping or withdrawing from classes and adding replacement classes after the first day of the semester, you may owe additional tuition as a result of the 75 percent refund policy. Always check your account balance.

Corporate and Continuing Education and Occupational Extension Classes
• All tuition will be systematically refunded by the College for any class canceled by the College.
• 100 percent of tuition paid will be refunded by the College if the student officially withdraws from the class prior to the first day of the class.
• 75 percent of tuition paid will be refunded by the College if the student officially withdraws from the class on or after the first day of the class through the 10 percent point of the class.

Self-Supporting Courses Refunds/Cancellations/No Shows:
Cancellations received at least seven (7) business days prior to the start date of the class are eligible for a full refund. After that, cancellations are subject to the entire class fee. Please note that if you don’t cancel and don’t attend, you are still responsible for payment. We reserve the right to cancel classes at any time without prior notice. Tuition will be refunded 100 percent for any class canceled by the College.

Fees
• Appropriate lab fee amounts will be refunded if the class is canceled by the College or the student drops a lab fee class during the 100 percent refund period.
• Student activity fees or student accident insurance and technology fee are not refunded unless the class is canceled by the College.

Note: This policy is subject to approval or change by the North Carolina Community College System.

Sponsored Programs
Sponsored students must submit a letter of authorization to bill and their registration information to the Sponsored Programs office or any CPCC Cashier office before they register and no later than the same day they register for classes. Please visit our website at www.cpcc.edu/sponsored-programs or call the Sponsored Programs office at 704.330.4262.

Student Insurance
Insurance coverage is available to students through CPCC at www.cpcc.edu/insurance/student-insurance.

1. Student Accident Insurance Plan

Central Piedmont Community College
The plan insures students against loss resulting from accidental bodily injury sustained while participating in or attending specific classes. For detailed, current, coverage information, visit the website above.

Student Accident Insurance is required for specific classes and is paid for at the time of registration. CPCC’s Soccer Club is considered a specific covered class. The policyholder representative is the Executive Director of Insurance and must sign the form before claims are submitted.

2. Medical Hospitalization Group Plan

The plan is available to students enrolled for six or more credit hours. The group plan offers several benefit options depending on the needs of the student.

Premiums vary per term or year depending upon the selected coverage and payment schedule. Spouses and unmarried children may be covered for an additional fee. Plans are a direct relationship between the student and the insurance provider.

Qualified students may directly contact the insurance provider through the website above.

Residence Status

A legal resident of North Carolina is one who has domicile (as opposed to temporary abode) in the State; however, the definition of residence status for tuition purposes includes other elements such as duration of residence. To be considered eligible for in-state status, one must first be eligible to establish legal residence and must have established and maintained such residence for at least 12 consecutive months immediately prior to the start of the term for which the in-state benefit is sought.

For students enrolling in college curriculum classes, an initial residence classification is made upon application to the College. It is the student’s responsibility to supply documenting evidence of residence status if requested to do so, though no one item or combination of items can be considered the determining factor(s) in residence classification. The decision is based on the preponderance of the evidence presented.

One or more of the following may be applicable to your situation:

1. The legal residence of minors (under 18 years of age) is that of the parents, surviving parent or legal guardian.
2. Residence status of foreign nationals is first reviewed in light of immigration documentation. Some visas do not confer eligibility to establish legal residence.
   - Persons holding Alien Registration Receipt Cards (Form I-551) and others holding certain work visas may be eligible to apply for in-state status.
   - Documenting evidence that legal residence has been established and maintained for 12 months prior to the start of the term is required as well.
3. Ownership of property in or payment of taxes to the State of North Carolina will not, in itself, qualify a person for in-state tuition status.
4. It is the responsibility of the student to inform the College if North Carolina residence is lost or abandoned while enrolled.

Students who think that they have been classified incorrectly or those initially classified as out-of-state who think they now meet the requirements for in-state status should contact Registration Services at any Central Piedmont Community College campus to initiate a review of status.

Information provided here is not intended to be comprehensive; however, the State Policy Manual is available for review at all CPCC Campus Registration Centers. Residence policy is based on North Carolina General Statute 116-143.1.

Veterans Resources

Veterans Resource Center

The Veterans Resource Center (VRC) is a place where armed forces members (including Guard/Reserves), veterans, and their immediate family members engage in services promoting their personal and professional development. The VRC provides resources that address many aspects of education, military and civilian life. VRC services include academic advising, personal counseling, career coaching, a computer lab with study space, Student Veterans of America Association, welcoming reception area and social lounge, and workshops such as well-being, filing a VA claim, and goal-setting. For more VRC information, visit Central Campus, Terrell Building, room 233. Office hours are Monday through Friday, 8:00 a.m. through 5:00 p.m. You may also call 704.330.6126 or visit www.cpcc.edu/vrc.

Veterans Affairs

Central Piedmont Community College (CPCC) is extremely proud of its long standing relationship with the men and women in uniform that bravely serve this country, those who have served and their families. The mission of CPCC’s Veterans Affairs Office is to enhance the educational experience of veterans and eligible family members by providing access to educational benefits within a supportive environment. We are dedicated to provide the highest quality and comprehensive support to student veterans in an atmosphere that provides commitment, respect and academic excellence.

Central Piedmont Community College is approved by the North Carolina State Approving Agency for the enrollment of persons eligible for education assistance benefits from the U.S. Department of Veteran Affairs. The College provides training opportunities for veterans, eligible National Guard/Reservists and eligible dependents (spouse and/or children) of 100 percent service-connected disabled or deceased veterans.

For additional information regarding these benefits, which are administered by the United States Department of Veterans Affairs, contact one of the following offices:

- Department of Veterans Affairs - 1.888.442.4551 or www.gibill.va.gov (http://www.gibill.va.gov)
- Mecklenburg County Veterans Service Office - 704.336.2102
- District Office of the North Carolina Division of Veterans Affairs - 704.563.2037
- Central Piedmont Community College’s Office of Veterans Affairs - 704.330.6267
- Central Piedmont Community College Veteran Resource Center - 704.330.6126

In addition, VA inquiries may be made at 1.888.442.4551 or via email to www.gibill.va.gov (http://www.gibill.va.gov) – Ask A Question.
Eligibility

Veterans Affairs students are in the unique position of having to meet requirements as specified by both the Department of Veterans Affairs and the North Carolina State Approving Agency (NCSAA). Although CPCC’s VA Office does not work for the Department of Veterans Affairs it is our job to work closely with them to ensure your needs as a student are met. Our office strives to meet the DVA goal of “Putting Veterans First.”

To receive VA educational benefits, students are required to do the following:

• Apply for VA educational benefits: all Veterans, National Guard/Selected Reserve and Survivors and Dependents of Disabled Veterans can apply online for benefits. You can access the application by going to www.gibill.va.gov (http://www.gibill.va.gov). This takes you to the VONAPP website which is the official Department of Veterans Affairs online application. Print an extra copy of the completed VONAPP, with confirmation numbers, to keep for your records. You will receive a Certificate of Eligibility from the Department of Veterans Affairs once the application is processed.

• Go to http://www.cpcc.edu/veterans/forms. Print and complete the forms listed under your approved chapter for educational benefits.

• Request official copies of high school, military and all prior College Transcripts to be sent to Student Records along with the Member 4 copy of your DD214;

• Important Notice: Your VA file will not be complete until your official high school, military (including DD214 member 4 copy) and college transcripts are in Student Records and evaluated;

• Meet with an Academic Counselor to be admitted into a VA Approved Program of Study;

• Read, sign and return all required forms included in the VA Student Packet.

Apply online - http://www.gibill.va.gov/apply-for-benefits/application/

The VONAPP (Veterans On Line Applications) website is an official U.S. Department of Veterans Affairs (VA) website which allows veterans and eligible family members to apply for certain benefits and submit change of schools forms through the Internet.

U.S. military veterans and some service members within six months of separation or retirement can apply for compensation, pension and vocational rehabilitation benefits on VONAPP.

U.S. military veterans, members of the Selected Reserve, National Guard and eligible dependents (see criteria for Chapter 35 eligibility at www.gibill.va.gov (http://www.gibill.va.gov)) can apply for education benefits online.

VONAPP also has a link to VA Form 10-10EX, Application for Health Benefits.

How is using this site different from visiting a VA office?

When you use this site to complete an application, it will be transmitted to the VA Regional Processing Office in Decatur, Georgia.

Processing will begin right away and you will receive a response from the Regional VA office letting you know the status of your application.

You will receive a Certificate of Eligibility once your application is processed. Please submit one copy of the certificate and other required documents to CPCC’s VA office.

VA Forms now available at www.gibill.va.gov

• VA Form 22-1995, Application for Change of Program or Place of Training – Veterans, National Guard/Reservists
• VA Form 22-5495, Application for Change of Program or Place of training for Survivors’ and Dependents’ Educational Assistance
• VA Form 22-0296, Direct Deposit Enrollment

Websites for further information:

• Department of Veterans Affairs: www.va.gov/ (http://www.va.gov)
• Veterans’ Benefits Administration: www.vba.va.gov/ (http://www.vba.va.gov)
• Disabled American Veterans: www.dav.org/ (http://www.dav.org)
• American Legion: www.legion.org/ (http://www.legion.org)
• DD 214 online request: vetrecs.archives.gov/http://www.vetrecs.archives.gov
• VA Vocational Rehabilitation: www.vetsuccess.gov/ (http://www.vetsuccess.gov)
• Education Benefits online application: www.vabenefits.vba.va.gov/ vonapp (http://www.vabenefits.vba.va.gov/vonapp)
• Apply for financial aid: www.fafsa.ed.gov (http://www.fafsa.ed.gov)
• Returning service members: www.oefoif.va.gov (http://www.oefoif.va.gov)

Student Veterans Association

We are a service and advocacy group at Central Piedmont Community College. Our mission is to serve all generations of all military branches, their dependents and all veteran supporters educationally, personally and professionally while enhancing the value of their military experiences as they transition to the next phase of their life.

We bring past and current members of the Armed Forces together to promote, unify and advocate for the veteran voice on- and off-campus. The SVA aims to educate the community about how the military has affected the lives of service members and to support those returning home from duty through the process of re-integration. The SVA stands ready to help student veterans achieve their education goals.

For more information email cpcc.sva@gmail.com.

Veterans Educational Benefits

Chapter 30, Montgomery GI Bill, Active Duty

Persons who first entered active duty after June 30, 1985, are generally eligible. Some Vietnam Era veterans and certain veterans separated under special programs are also eligible. The veteran needs to have received an honorable discharge and continuously served for three years, or two years if that is what you were first enlisted for, or two years if you have an obligation to serve four years in the Selected Reserve and entered the Selected Reserve within a year of leaving active duty. The MGIB program provides up to 36 months of education benefits. This benefit may be used for degree, diploma and certificate programs. Remedial, deficiency and refresher courses may be approved under certain circumstances. Generally, benefits are payable for 10 years following release from active duty.
Chapter 33, Post-9/11 GI Bill
The Post-9/11 GI Bill is an education benefit program for individuals who served at least 90 days of aggregate service after September 10, 2001. To be eligible for 100 percent of the benefit an individual should have served an aggregate of 36 months of active duty service or have been discharged for a service-connected disability after 30 days of continuous service. Post-9/11 GI Bill benefits are payable for training pursued on or after August 1, 2009. No payments can be made under this program for training pursued before that date. Once you elect to receive benefits under the Post-9/11 GI Bill, you will no longer be eligible to receive benefits under the program from which you elected the Post-9/11 GI Bill. Individuals should carefully consider their educational goals before applying and electing benefits under the Post-9/11 GI Bill. Benefits are payable for 15 years following release of active duty.

Important Note - The $600 Buy Up is not payable under the Post-9/11 GI Bill.

Chapter 33, Transfer of Post-9/11 GI-Bill Benefits to Dependents (TEB/TOE)
For the first time in history, service members enrolled in the Post-9/11 GI Bill Program are able to transfer unused educational benefits to their spouses or children starting August 1, 2009. Department of Defense guidance, issued June 23, 2009, establishes the criteria for eligibility and transfer of those education benefits.

For details regarding eligibility for this transfer, go to www.gibill.va.gov (http://www.gibill.va.gov). All applications will be submitted through the Transferability of Educational Benefits (TEB) website located at www.dmrc.osd.mil/TEB (http://www.dmrc.osd.mil/TEB). An individual approved to transfer an entitlement to educational assistance under this section may transfer the individual’s entitlement to:

- The individual’s spouse
- One or more of the individual’s children
- Any combination of spouse and child
- An eligible service member may transfer up to the total months of unused Post-9/11 GI Bill benefits, or the entire 36 months if the member hasn’t used any months. A family member should be enrolled in the Defense Eligibility Enrollment Reporting Systems (DEERS) and be eligible for benefits, at the time of transfer to receive transferred educational benefits.

Chapter 1606, Educational Assistance for Members of the Selected Reserve.
Chapter 1606 is for individuals in the Selected Reserve or National Guard. Members should have a six-year obligation to serve in the Selected Reserve signed after June 30, 1985. An officer will need to have agreed to serve six years in addition to original obligation. Eligible members need to complete initial active duty for training (IADT), obtain a high school diploma or equivalency before applying for benefits and remain in good standing while serving in an active Selected Reserve unit. The Department of Defense (DOD) is responsible for determining eligibility and issuing DD Form 2384-1 Notice of Basic Eligibility (NOBE). Tuition Assistance, awarded by the respective branch of service, may be available to members of the National Guard or Active Duty Personnel. Eligibility requirements are available at the member’s unit command.

Tuition Assistance is processed through the Sponsored Programs Office at CPCC - 704.330.4262 or sponsoredprograms@cpcc.edu.

Chapter 1607 REAP, Education benefit for Activated Reservists
Chapter 1607 is an education benefit that provides up to 36 months of education benefits to members of the Selected Reserves. Individual Ready Reserve and National Guard, who are called or ordered to active service in response to a war or national emergency, as declared by the President or Congress. Eligibility will be determined by the Department of Defense or Department of Homeland Security as appropriate. Generally, a member of a Reserve component who serves on active duty on or after September 11, 2001 under title 10, U.S. Code, for at least 90 consecutive days under a contingency operation, is eligible for REAP. National Guard members are eligible if their active service extends for 90 consecutive days or more and their service is authorized under section 502(f), title 32 U.S. Code, authorized by the President or Secretary of Defense for a national emergency and supported by federal funds.

Chapter 35, Dependents and Survivors Educational Assistance
The Dependents Educational Assistance Program is an education benefit for eligible spouses and children of certain veterans. To be eligible, the student should be the spouse or child of a member of the Armed Forces who has died while on active duty or as the result of a disability that VA has determined is service-connected, or is 100 percent permanently and totally disabled for a service-related reason.

Dependents receive up to 45 months of full-time benefits and are generally eligible for the benefits between ages 18 and 26.

For a spouse, benefits end 10 years from the date that the DVA declares eligibility or 20 years from the date of death of the veteran.

Chapter 31, Training and Rehabilitation for Veterans with Service-Connected Disabilities
Veterans Affairs Vocational Rehabilitation is a program whose primary function is to help veterans with service connected disabilities become suitably employed, maintain employment and achieve independence in daily living.

The program offers a number of services to help each eligible disabled veteran reach his or her rehabilitation goal. These services include vocational counseling, education and training, financial aid, job assistance, and, if needed, medical and dental treatment. Services generally last up to 48 months and can be extended in certain instances.

To be eligible, the veteran should first be awarded a monthly VA disability compensation payment (in most cases) and must have received or will receive a discharge that is other than dishonorable. Eligibility is also based on meeting the following conditions:

- Have received an honorable or other than dishonorable discharge
- Have a VA service-connected disability rating of 10 percent or more
- Veteran needs Vocational Rehabilitation to overcome an employment handicap
- It has been less than 12 years since VA notified the veteran of the determination is service-connected

Detailed information and the online application can be found at www.vetsuccess.gov (http://www.vetsuccess.gov) or contact the VA Vocational Rehabilitation Office, 251 North Main Street, Winston-Salem, NC 27155. Telephone: 336.714.0817.
Veterans Retraining Assistance Program (VRAP)

Congress passed, and the President has signed into law, the VOW to Hire Heroes Act of 2011. Included in this new law is the Veterans Retraining Assistance Program (VRAP). VRAP offers up to 12 months of training assistance to veterans who are:

- unemployed.
- at least 35 but no more than 60 years of age.
- have an other than dishonorable discharge
- not eligible for any other VA education benefit program (e.g., the Post 9/11 GI Bill, Montgomery GI Bill, Vocational Rehabilitation and Employment).
- not in receipt of VA compensation due to Individual Unemployability (IU).
- not enrolled in a federal or state job training program.
- enrolled in a VA approved program of education offered by a community college or technical school.

Participants may receive up to 12 months of assistance at the full-time payment rate under the Montgomery GI Bill – Active Duty program. The program must lead to an associate degree, diploma, or a certification, and train the Veteran for a high-demand occupation. Note: Only the curriculum programs at CPCC are eligible for VRAP certification.

Visit www.gibill.va.gov/VRAP (http://benefits.va.gov/vow/education.htm) to learn more.

Enrollment Certification Process (22-1999)

Your CPCC VA file will need to be complete before you can be certified for VA Educational Benefits. Once your file is complete and you have registered and paid for classes (if required), you can make an appointment to be certified by calling 704.330.6267. A VA Request for Certification Form will be completed listing the courses that you are requesting for Certification of your benefits. Please access your “MyCollege” online service and run a Program Evaluation to confirm all courses are required for your Program of Study when you register as only required courses can be certified. Specific criteria - will need to be met to be eligible for certification in virtual courses (telecourse, online and blended.) Per Federal guidelines, remedial courses offered as virtual courses and/or online lab component are not eligible for VA certification.

Evaluation of Transcripts

Students receiving veteran’s educational benefits need to report all previous course work and request that official academic transcripts be sent from all previous schools to CPCC’s Student Records Office regardless of whether you received credit for the courses. VA regulations require that all prior college credit be evaluated toward the student’s current degree plan and re-evaluated if/when the student changes programs or place of training. A student receiving VA educational benefits may not receive benefits for any course for which he/she has already received credit even if the course was completed prior to the establishment of eligibility for benefits. Certification of enrollment cannot be completed until all transcripts are received and evaluated.

Selection of Degree Program

In order to receive educational benefits, VA regulations require that the student have a “predetermined and identified educational, professional or vocational objective.” Benefits cannot be authorized for courses which do not lead to the completion of this objective. Courses which do not apply to the selected program are considered unrelated courses and are not eligible for benefits. Therefore, any such courses will not be certified.

Verification of Enrollment (Chapters 30, 1606 and 1607)

After the Veterans Affairs Office has certified your semester hours to the VA Regional Processing Office, you will need to verify that your hours have not changed. You will do this the first of each month by calling 877.823.2378 (if there are no changes) or by using WAVE (Web Automated Verification of Enrollment) through www.gibill.va.gov (http://www.gibill.va.gov). Students are responsible for notifying the VA Office immediately when changes are made to their enrollment and complete a VA Schedule Adjustment Form. The VA Office is responsible for transmitting all Changes of Enrollments immediately to the VA Regional Processing Office to prevent over payments.

Notification from the Department of Veterans Affairs

All VA Certifying Officials use a program called VAOnce to transmit Enrollment Certifications, reductions/increases or terminations to the VA Regional Processing Office. The Department of VA will transmit an electronic message directly to your CPCC email account when any type of activity is transmitted by a VA Certifying Official to the VA Regional Processing Office. It is important to always notify the Department of Veterans Affairs, CPCC’s VA Office and the Student Records Department of changes in your address, phone number or email address to prevent delays in communication.

Satisfactory Academic Progress

Educational benefits to veterans and eligible persons will be discontinued once the student ceases to make satisfactory progress toward completion of his/her training. Veterans and eligible persons follow the same academic progress that applies to financial aid students attending the College.

Veterans and eligible dependents/ spouses are required to seek academic assistance by contacting their instructor, counselor, advisor, or the CPCC’s Office of Veterans Affairs before academic difficulties place them on “Warning” or “Suspension.”

Satisfactory: A student who is receiving VA educational benefits will need to maintain a minimum grade point average (GPA) of 2.000 to be considered making satisfactory progress.

Probation: Students who fail to achieve a cumulative GPA of 2.000 shall be placed on academic probation for the next semester. If the student achieves a semester GPA of 2.0 or better during the probationary term, but has not achieved the required cumulative GPA of 2.000, the student may be certified one additional semester.

Suspension: If the student on academic probation fails to achieve a semester GPA of 2.0 at the end of the first probationary semester, the student shall be reported to the Veterans Affairs Regional Office as making unsatisfactory progress. These standards are in accordance with the Department of Veterans Affairs Code of Federal Regulations, Title 38, Part 21, Sub-part D, Section 21.4277. The student will no longer be eligible for certification until the cumulative GPA is brought up to a 2.000.

Any student who is reported to the VA Regional Office as making unsatisfactory progress will have his/her educational benefits discontinued by the Department of Veterans Affairs. Progress is unsatisfactory if the student does not satisfactorily progress according to the regularly prescribed standards and practices of the institution he/she is attending.

Central Piedmont Community College
Unsatisfactory attendance in courses may result in administrative withdrawal. An administrative withdrawal will be reported to the VA Regional Office and educational benefits will be discontinued at that time.

If a veteran affairs student is requesting benefits and is currently on "Probation" or "Suspension," a letter of notification is sent to the student’s CPCC email. If the student is on Suspension, their eligibility is terminated until they meet the Standards of Academic Progress required to place them back into an eligible status to receive their VA educational benefits.

Failures

If a veteran affairs student completes a course with a grade of “F,” (an earned “F”) they may still receive VA benefits if they completed the course. An exception would be if they did not complete the final exam and did not attend class according to the college policy (unearned “F”). If a student fails to attend class and/or take the final exam, the VA Regional Office is notified and the student is classified as having received an overpayment of funds. Any overpayments are the student’s responsibility. VA students may receive benefits to retake a required course if they previously received a failing grade.

Note: Courses completed with a grade of “D” cannot be recertified if the College accepts the grade toward graduation.

Changes of Enrollment Status, Program of Study or Graduation, Address/Phone Information

Veteran Affairs students are responsible for and required to notify CPCC’s Veterans Affairs Office immediately of any withdrawals, attendance issues, change of address, phone number or email address, pending or approved program changes, course substitutions and/or waivers and graduation. Veteran Affairs students are responsible to the US Department of Veterans Affairs for repaying overpayments.

Change of Enrollment Status - Withdrawals/Non-Attendance

It is the student’s responsibility to report all withdrawals or attendance issues to CPCC’s Office of Veterans Affairs immediately to prevent overpayments. Students are required to complete a VA Schedule Adjustment form and submit mitigating circumstances in writing for evaluation and approval within five business days. The last date of attendance must be verified by the instructor for all withdrawals. Students are allowed a one-time exclusion from being penalized for withdrawing for up to six credit hours by the VA Regional Processing Office. Students can be paid up to the last Instructor confirmed date of attendance for those six hours. This exclusion has to be approved and processed by the Department of Veterans Affairs. After that time, students have to provide the VA Office with mitigating circumstances or repay any benefits received. If the student attended classes throughout the semester and receives a “W” as a grade (non-punitive grade), this has to be reported to the VA Regional Office and is not part of the six-hour one time exclusion even if he/she can document that they attended through the last day of class. Students are responsible for overpayments resulting from non-punitive grades. Failure to notify CPCC’s VA Office of withdrawals and continued acceptance of educational funds may be considered fraud. Students are encouraged to register only for those classes they know they can complete.

Change of Program

Changes in Program of Study must be submitted to the VA Regional Office by the Veterans Affairs Certifying Official. This is necessary because reevaluation of all prior credits earned need to be completed to ensure their full utilization. Students can only be certified for courses fully accepted for their Program of Study as reflected in the College Catalog. Students should meet with the VA Certifying Official before changing programs. All program changes are initiated through Academic Counseling Services. The student will complete a “Request for Change of Program,” VA Form 1995 (Veterans) or VA Form 5495 (Dependent/Spouse). This form is accepted only after the Program Code has been officially updated by an Academic Counselor.

Graduation

Students applying for Graduation must inform CPCC’s VA Office once they have verified that they are in their last semester at the College. During the student’s last semester, they can be certified for all credit hours if they are taking all courses needed to satisfy graduation requirements and need additional hours to be at full-time status. This benefit can only be used once at CPCC. Previously passed courses or courses transferred in from other colleges cannot be certified.

Dual Degree

Central Piedmont Community Students need to meet certain criteria to be certified for Veterans’ Affairs benefits while seeking two degrees. College is approved for Veterans Affairs students to pursue dual degrees simultaneously. Students desiring a second degree should meet with the Veterans Affairs Certifying Official and Academic Counseling to complete a Dual Degree Approval Form and follow the guidelines listed in the College Catalog. Diplomas and Certificates do not qualify for the Dual Degree Program.

Address/Phone Number Changes

To report a change of address/phone number, Veterans Affairs students should update their address/phone number through the Student Records Department or at http://mycollege.cpcc.edu, submit their updated information in writing to CPCC’s VA Office and contact the VA Regional Office at 1.888.442.4551.

The following cannot be certified for VA benefits:

- Courses that aren’t required for completion of the student’s degree, diploma, or certificate program
- Courses previously completed successfully
- Courses for which transfer credit has been granted
- Courses taken while not admitted to a diploma, certificate, or degree program
- Virtual courses (telecourse, online and blended) that haven’t met the specific criteria (see Virtual Course Guidelines)
- Remedial courses taken virtually and/or with online lab components
- Audited courses
- Courses for which credit by examination has been received
- Corporate and Continuing Education courses such as self-improvement or recreational courses
- Any course not approved by the State Approving Agency

Note: All policies are subject to change based on institutional and federal guidelines.

Virtual Course Guidelines

The option of receiving Veterans Affairs educational benefits for virtual, (telecourse, online and blended) is offered to students who have met specific criteria. This includes but is not limited to:
• Student needs to have completed or transferred in 12 credit hours of graduation requirements.
• Student must have a cumulative GPA of 2.0 prior to enrolling in the virtual courses and at least a 2.0 GPA at the end of each term to continue eligibility.
• Remedial courses that are offered as virtual courses and/or with online lab components are not eligible for certification for Veterans Affairs educational benefits;
• Courses have to be required and count towards graduation either as core courses or as electives;
• Student should use their CPCC-issued email address for all correspondence;
• Chapter 31 students need to have permission from their VA Case Manager before registering for virtual courses;
• Attendance guidelines are mandatory which include monthly emails to CPCC’s Veterans Affairs Office from the student to verify their participation in the class and communication with their instructor.

Forms
Veterans Affairs applications, Change of Programs forms, general VA forms and Benefit Brochures are available at CPCC’s Veterans’ Affairs Office or found at www.va.gov/vaforms/ (http://www.va.gov/vaforms)

Financial Aid and Scholarships
Veterans Affairs students are encouraged to apply for financial aid and scholarships. Visit the following websites:

• www.fafsa.ed.gov (http://www.fafsa.ed.gov)
• www.cpcc.edu/financial_aid
• www.cpcc.edu/financial_aid/scholarships

Servicemembers Opportunity Colleges (SOC)
Central Piedmont Community College has been designated as an institutional member of Servicemembers Opportunity Colleges (SOC), a group of more than 1,900 institutions pledged to be reasonable in working with servicemembers and veterans trying to earn degrees even while pursuing demanding, transient careers. As a SOC member, CPCC is committed to easing the transfer of relevant course credits and crediting education from appropriate military training. SOC has been developed jointly by educational representatives of each of the armed services, the Office of the Secretary of Defense and a consortium of 13 leading national higher education associations; it is sponsored by the American Association of State Colleges and Universities and the American Association of Community Colleges.

The “Activate Your CPCC Email Account” paragraph appears before Eligibility Requirements.
Pre-College Programs

CPCC’s College and Career Readiness staff members take a student-focused approach to helping students develop vital life skills, working with participants one-on-one before they enroll in college or seek employment.

To ensure a smooth transition into a post-secondary education institution or the workforce, the department’s team guides students through an assortment of college and career readiness courses such as foundational skills courses in language arts and math; pre-college courses that include GED preparation, Adult High School courses and English as a Second Language classes; and Pathways to Careers that combines occupational training with academic and work readiness.

Adult English As A Second Language (Adult ESL)

English as a Second Language (ESL) is English language instruction by professionals trained to teach students from diverse cultural, geographical and linguistic backgrounds from all over the world. Three strands of ESL are offered for language skill development, including Civic Engagement, Work Readiness, and College and Career Readiness. Students begin with Foundational ESL courses and can choose from a series of courses to meet short-term and long-term goals. Courses are designed for students interested in acclimating to American culture, earning their U. S. citizenship, seeking immediate employment, obtaining a GED, pursuing further job training or preparing for college. Courses are free of charge to students. For more information, call 704.330.6127.

Foundational ESL

EFD 6007 Introduction to ESL Literacy Skills

This foundational English course provides students with English skills to understand frequently used words in contexts and very simple phrases with some repetition. Students will be able to recognize and read and write numbers and letters in addition to a limited number of basic sight words and simple sentences or phrases. Students will be able to write basic personal information when requested. This course teaches students to recognize common forms of print found in the home, workplace and community. Technology skills are integrated into instruction whenever possible.

EFD 6008 Low Beginning ESL Skills

This second level foundational English course provides students with English skills to understand frequently used words in context and simple phrases and respond to questions using these phrases. Students will be able to read and understand sight words, phrases and simple sentences. Students will be able to complete simple personal information or workplace forms. Technology skills are integrated into instruction whenever possible.

EFD 6009 High Beginning ESL Skills

This third level foundational English course provides students with English skills to understand simple acquired phrases and to ask and respond to questions using such phrases. The students will be able to read and comprehend simple materials on familiar subjects with familiar vocabulary and to write simple notes and messages on familiar situations. Students will be able to interpret simple directions and schedules in English. This course prepares students to handle routine entry-level positions which involve some written or oral English communication and in which the job tasks can be demonstrated. Technology skills are integrated into instruction whenever possible.

ECC 6010, ECV 6010, EWK 6010 Low Intermediate ESL Skills for College and Career Readiness, Civic Engagement, or Work Readiness

These courses provide the students with English skills in conjunction with content skills based on students’ long-term goals.

The ECC (College and Career Readiness) courses focus on an introduction to the vocabulary and academic skills that students will need to transition to further educational work or career preparation programs. Students will enroll in series of courses to begin developing the cognitive academic language proficiencies required in post ESL coursework.

THE ECV (Civic Engagement) courses combine language instruction with municipal, state and national government, history and civics content. Courses in this strand also focus on the skills needed to become more fully engaged as community members and citizens.

The EWK (Work Readiness) courses are short-term, job specific courses that provide instruction in the language and culture of the workplace. Courses are designed and delivered based on local employment trends.

ECC 6011, ECV 6011, EWK 6011 High Intermediate ESL Skills for College and Career Readiness, Civic Engagement or Work Readiness

These courses provide students with leveled instruction within the strand of their choosing. ECC courses continue instruction in academic vocabulary, critical reading, discussion and writing skills with a focus on transitioning to high school equivalency, career training, or college-level programs. ECV courses provide further leveled instruction with an emphasis on U.S. government, economics, history and civics content. EWK courses are short-term, job specific courses that provide instruction in the language and culture of the workplace. Courses are designed and delivered based on local employment trends in the linguistically appropriate level.

ECC 6102, ECV 6102, EWK 6102 Low Advanced ESL Skills for College and Career Readiness, Civic Engagement or Work Readiness

These are the final level courses within each of the three Adult ESL strands: College and Career Readiness, Civic Engagement and Work Readiness. The goal of the CCR courses at this level is to prepare students academically and linguistically to transition to other pre-college or college level programs at the conclusion of instruction. ECV courses are designed to result in readiness for the US Citizenship exam or in a knowledge base that allows learners to more fully participate in their roles as community members, parents, or in the workplace. EWK courses are short term, job specific courses that provide instruction in the language and culture of the workplace. Courses are designed and delivered based on local employment trends.

ECC, ECV, and EWK 6000 courses are offered on several campuses and designate courses with combined English proficiency levels.

ECO 6000 courses are offered in sites throughout the community. These sites include public schools, community centers and religious organizations.

ELR courses designate Adult English as a Second Language instruction delivered in a technology assisted Learning Resource Center.
technology centers are available on multiple campuses and have morning, afternoon and evening hours.

EDL courses designate Distance Learning options in the Adult English as a Second Language program. These options include ESL courses delivered online as English Online.

CDL course designate Distance Learning options in the Adult English as a Second Language program. These options include ESL courses delivered in video format as Crossroads Café.

No degrees offered.

No diplomas offered.

No certificates offered.

**Adult High School Diploma (HSD)**

The Adult High School Diploma program offers students a chance to earn the credits they need to complete a high school education. Students meet with a counselor to evaluate their transcript and determine the class they need to earn an Adult High School Diploma issued through Charlotte-Mecklenburg Schools. There is no charge for classes, and the program is also offered online. For more information, call 704.330.6129 or 704.330.6864.

**HSD - Adult High School Course Descriptions**

**Computer Literacy**

**HSD 6068 Computer Literacy I**

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal use as well as the work environment. Upon completion of this course, students will be able to demonstrate basic computer skills, using Microsoft Office Professional Applications, such as, Word, PowerPoint and Excel. Students will also have a working knowledge of the Internet and be able to successfully navigate the World Wide Web.

**English**

**HSD 6002 High School Diploma English I**

This course introduces the basic study of grammar and develops writing mastery through the writing process. Types of writing include narrative and descriptive paragraphs and essays. Vocabulary development, reading comprehension and oral communication skills are also introduced.

**HSD 6003 High School Diploma English II**

This course expands on skills in reading, writing and oral communication that were introduced in English I. New concepts and skills are added to give students a basic foundation in English grammar, punctuation and vocabulary. Students are expected to demonstrate a mastery of these skills.

**HSD 6004 High School Diploma English III**

This course emphasizes literature with a focus on understanding the definition and application of certain literary terms as applied to selected passages. Writing includes the development of comparison-and-contrast research papers relating to literary selections. Application of grammar skills learned in all levels of English is reviewed.

**HSD 6005 High School Diploma English IV**

Students will increase their knowledge of grammar, reading comprehension and vocabulary by focusing on the following: the writing and punctuation of a variety of sentence types, a review of the parts of speech and the regular use of the newspaper. A major emphasis in this course will be on writing persuasive research papers.

**Mathematics**

**HSD 6013 Applications of Mathematics**

This course expands the basic math skills to include the solution of word problems involving percent applications, proportions, reading charts and graphs for information, estimation, working with measurement and basic geometry concepts. Applications of the use of math in real-life situations are emphasized throughout the course.

**HSD 6014 Pre-Algebra**

This course builds a foundation for algebra. Topics covered include subsets of the real numbers, simplifying radicals, properties of the real numbers, prime factorization, the language of algebra, working with signed numbers, combining like terms, solving first degree equations, setting up and solving word problems, solving and graphing inequalities.

**HSD 6040 Algebra**

Upon completion of this course, students should be able to solve problems using the symbolism of algebra, solve first degree equations, recognize and graph linear equations, solve systems of two equations, manipulate literal equations, recognize and use of properties of real numbers, simplify expressions containing exponents, multiply polynomials and factor polynomials.

**HSD 6044 Geometry**

This course stresses plane geometry with a brief overview of trigonometry and solid geometry. Upon completion of this course, students should be able to do simple proofs, problem solve, demonstrate basic geometric constructions and use a scientific calculator to solve problems.

**Health**

**HSD 6085 Health**

This course is an exploration into health in relation to our bodies, our environment and careers. Topics will include exercise and nutrition, pollution and X-ray technician. Field trips, speakers and hands-on activities are offered along with the book work.

**History**

**HSD 6022 United States History**

Upon completion of this course, students should be able to recount major events in U.S. history from Columbus to the present, reflecting the development and changes in economic, social, political and foreign policy in relation to these events.

**HSD 6023 Government and Economics**
This course is designed to give students a basic overview of critical issues related to government and economics. The study of government emphasizes the United States Constitution as it relates to the structure of our national government and to the rights of individuals in our society. The study of economics involves a discussion of key economic systems and their influences on public issues. Application of these concepts to current events and practical situations is emphasized throughout the course.

HSD 6024 World Cultures

This course is a topical review of civilizations’ beginnings in the Mesopotamian basin to an analysis of the political and economic climate fostering the democratization of the world in the modern era. Students should be able to develop an appreciation for the cultural differences and similarities of the peoples of the world as they relate to evolving economic, religious, social and political customs.

Science

HSD 6032 Physical Science

This course introduces the basic laws and principles of chemistry and physics. Topics include the scientific method, motion, energy, machines, the nature of matter, atomic structure, chemical bonds, waves, light, sound and electricity. Upon completion, students will be able to demonstrate an understanding of basic physical science concepts.

HSD 6033 Biology

This course is a basic study of biological concepts and principles of biology. Upon completion, students should be able to demonstrate an understanding of the nature of science, cell structure and function, chemical and physical basis of life, diversity and classification of living things, genetic inheritance, human anatomy and physiology and the influence of human activity on the environment.

HSD 6038 Earth/Environmental Science

This course introduces the principles of environmental science. Topics include ecosystems, populations, communities, the interconnectivity of living organisms, conservation, effects of human activity on the environment, renewable and nonrenewable resources and energy flow. Upon completion, students will be able to demonstrate an understanding of basic ecological concepts.

Electives

HSD 6007 The World Today

This course focuses on providing the student with information on dramatic issues, events and topics that shaped the 1990s. Class discussion and research along with the textbook help identify the major developments to be examined.

HSD 6008 You and the Law

This course introduces a few of the many areas in which the law operates, providing students with some idea of the countless ways in which the law may affect their everyday life.

HSD 6072 Career Planning

This course, through a variety of activities, is designed to help students discover their interests and possible careers. They will be taught to set goals, how and where to acquire the information and tools necessary for success whether it is for a job or college.

HSD 6074 Psychology

This course examines various theories of psychology, giving students an overview of what it is and how it is used in today’s society. Field trips, speakers and hands-on activities are included in the curriculum.

HSD 6075 Errors in Reasoning: Games, Puzzles, Etc.

Upon completion, students will be able to identify three types of errors people make in solving problems. Students will learn to verbalize a systematic problem solving process and apply the process to different problems. Each student will learn to observe and use all available facts to solve problems. These skills build confidence in problem solving.

HSD 6077 Unlocking the Printed Page

Upon completion of this course, students will be more confident with a variety of reading material. Students will learn the appropriate reading strategies for English, history, math and science materials as well as short stories and essays. Emphasis will be placed on building students’ vocabulary through context clues, identifying relationships and dictionary skills.

HSD 6078 Creative Writing

This course is designed to offer students the experience of four different genres in literature: autobiography, the short story, poetry and playwrights. Along the way, students will learn various terms and create a portfolio of their own works in these specific genres for a final grade. Emphasis will be placed on knowledge of genre components, comprehension and creative enthusiasm and participation.

No degrees offered.

An Adult High School Diploma is awarded through Charlotte-Mecklenburg Schools (CMS). The number of credits needed to earn the diploma is based on an agreement with CMS and is subject to change.

No certificates offered.

Foundational Skills

The Foundational Skills program offers students an opportunity to learn basic language arts (reading and writing) and math skills. After completing all four Foundational Skills levels, students will be prepared for entry into the GED programs, Adult High School, and/or short-term training programs.

The College also provides services to help people with disabilities learn the life skills they need to enjoy independent living and successful employment in the real world.

The program’s classes are free of charge, with all course materials provided by CPCC. The classes give students the opportunity to make new friends and gain invaluable knowledge that will allow them to one day become more independent in areas such as employment, transportation, daily living and more.

Program participants learn from instructors who understand their learning needs and design classes focused on the following areas:

- reading and writing
Foundational Skills Course Descriptions

FLA 6001 Language Arts

Upon completion of this course the student will be able to read and understand simple texts that contain familiar vocabulary; locate information organized in alphabetical or numerical groups or categories; and utilize at least one writing strategy to generate and organize ideas for writing. The student will also be able to apply basic awareness of writing as a process including planning, writing a draft, revising and editing.

FMA 6001 Math

This course is designed to introduce basic math skills including reading, writing, ordering and comparing numbers from 0 to 100. Upon completion of this course, students will be able to add and subtract one-digit to multi-digit numbers, multiply and divide one- to three-digit numbers, subtract from zero and multiply with zeros.

FLA 6002 Language Arts

Upon completion of this course, the student will be able to read and understand moderately complex texts; use contextual clues to determine meaning; and interpret charts and graphs and locate information. The student will also be able to apply basic understanding of the components of the writing process: planning, drafting, revising and editing.

FMA 6002 Math

Upon completion of this course the student will be able to identify place value and round off numbers; demonstrate understanding of addition, subtraction, multiplication, and division with fractions; and use mathematical calculations to solve simple word problems.

FLA 6003 Language Arts

Upon completion of this course, the student will be able to read and understand short stories and newspaper articles. Other topics include following multi-step procedures, comparing and contrasting, and determining the difference between fact and opinion. This course also includes a writing component in which students write descriptions and short essays using proper pronunciation and spelling.

FMA 6003 Math

Upon completion of this course, the student will be able to add, subtract, multiply and divide whole numbers, fractions and decimals to solve everyday problems. The students will also be able to determine correct math operations for solving word problems and convert fractions to decimals and decimals to fractions.

FLA 6004 Language Arts

This course focuses on understanding multi-step directions and reading common legal forms and manuals. The student will learn how to integrate information from texts, charts and graphs and be introduced to more complex themes and elements in literature, science and social studies. Upon completion of this course, students will also be able to write in an organized and cohesive manner with few mechanical errors and a complex sentence structure.

FMA 6004 Math

This course is designed to help students to interpret and solve simple algebraic equations, tables, and graphs. In addition, students use formulas and mathematical calculations involving percents, ratio and proportion, scientific notation, positive and negative numbers, geometry and the Pythagorean Theorem to solve real-life problems.

FLR 6000, 6001, 6002, 6003, 6004

Student Learning Resource Centers (LRC’s) are open labs designed to be a supplement or alternative to direct instructional classes.

General Educational Development (GED)

The General Educational Development (GED) Preparation Program offers students an opportunity to gain the knowledge and skills needed to successfully pass the GED test and earn a high school equivalency diploma. The GED tests measure knowledge in science, math, social studies, reading and writing, including a written essay that assesses students’ ability to communicate effectively. There is no charge for GED classes; however, there is a fee for final GED testing. For more information call 704.330.6129.

Please note that the GED® Test will be revised in January 2014. Any individual who completed parts but not all of the GED® prior to December 2013 will need to start over again. Scores will not carry forward. The 2014 GED® Test will also be totally computerized, and the testing fee will increase significantly.

GED Preparation Course Descriptions

GFT 6000 GED Fast Track

This eight-week course integrates the reading, writing and math skills needed to pass the GED Tests. Upon completion of this course, students should be able to pass the Official GED Practice Tests in writing, math, language arts, social studies and science with a minimum score of 480. To ensure student success, a strict attendance policy is enforced.

GLA 6000 GED Language Arts

This is an eight-week writing intensive course designed to help students develop the writing and grammar skills necessary to successfully pass the Official GED Writing Test. Upon completion of this course, students should be able to construct a well organized essay using supporting details and personal experiences to thoroughly express an assigned topic. To ensure student success, a strict attendance policy is enforced.

GMW 6000 GED Math
This eight-week course is designed to help students master basic math skills ranging from understanding fractions to solving algebraic equations. Upon completion of this course, students should be able to problem solve, demonstrate basic geometry and pass the Official GED Math Practice Test with a minimum score of 480. To ensure student success, a strict attendance policy is enforced.

**GMW 6000 GED Math & Writing**

This eight-week course integrates components of the GED Language Arts and Math courses to help students develop and strengthen their critical writing and thinking skills. Upon completion of this course, students should be able to pass the Official GED Math and Writing Tests with a minimum score of 480.

**GLR 6000 GED Learning Resource Center**

The GED Learning Resource Center offers individualized and small group instruction for students who desire instructional support as they prepare to take the GED Tests. Students can dual enroll in the LRC and any of the GED preparation courses for additional support and practice. Similar courses: GLR 6004, GLR 6005 and GLR 6006.

**GDL 6000 GED Distance Learning (Online)**

GED Online is designed for students who are unable to attend traditional GED preparation classes on campus. A customized Internet-based instructional program is provided based on each student’s assessment results. Students can access the course from any computer with Internet access. Students are required to attend an initial orientation and post-testing session on campus.

**GED 6005 General Educational Development (Final testing)**

This course/test is the successful completion of the GED test battery. A cumulative score of 2250 with no individual test score below 410 indicates successful completion.

No degrees offered.

A High School Equivalency Diploma is issued by the North Carolina Community College System following successful passage of the GED® Tests.

The GED® Tests measure knowledge in science, math, social studies, reading, and writing, including a written essay that assesses a students’ ability to communicate effectively. The current tests being used through December, 2013 take approximately 7 hours to complete. To receive a high school equivalency diploma you must score at least 41 points on an individual test, and all your test scores together must be 225 points or more (average of 45 per test). The total testing fee is $35.

After January, 2014, the GED® Tests will be totally computerized. The testing fee will be $120 with $30 for every retest. Testing time will be 7 ¼ hours with the timing as follows:

- Reasoning through Language Arts is 150 minutes (including a 10-minute break).
- Mathematical Reasoning is 90 minutes.
- Science is 90 minutes.
- Social Studies is 90 minutes.

For information on registering to take the GED® Tests, go to http://www.cpcc.edu/ccr/ged/steps

No certificates offered.

**Human Resource Development (HRD)**

The Human Resources Development (HRD) program is designed to serve unemployed and underemployed individuals across Mecklenburg County who are struggling with the stark transitions taking place in the economy. HRD provides skills assessment services, employability skills training and career development courses. For more information, call 704.330.6794.

**HRD — Human Resources Development Course Descriptions**

**HRD 6001 Employability Skills Training**

This course addresses each of the six core HRD components: 1) assessment of an individual’s assets and limitations, 2) development of a positive self-concept, 3) development of employability skills, 4) development of communication skills, 5) development of problem-solving skills and 6) awareness of the impact of information technology in the workplace.

**HRD 6015 Technology Awareness**

This course provides employability skills training for unemployed and underemployed adults. The curriculum framework and the content of the instructional materials should focus on the following topics: assessing the individual’s technology literacy, developing a moderate comfort level of basic computer-use skills, using technology to implement job search strategies, researching career and occupational information, compiling employment-related documents (resume, cover letters, applications and electronic employment portfolios), accessing governmental and educational resources, understanding the impact of social networking on employment and emphasizing the role of technology in the workplace.

**HRD 6018 Financial Education**

The course is designed to help students understand real-life economic concepts and economic ways of thinking that will enable them to make better informed decisions as it relates to their role as a member of the workforce. Topics include, but are not limited to; wage improvement plans, workplace business concepts and basic economic literacy concepts.

**HRD 6019 Career Readiness and Exploration**

This course provides employability skills training for unemployed and underemployed adults. The curriculum framework is based on a specific occupation and addresses one or more of the following topics: career exploration, job seeking and keeping strategies, entry-level skill awareness and development, and training success strategies including note-taking, test-taking strategies, reducing test anxiety and preparing for certification exams and placement tests.

**HRD 7000 Career Planning and Assessment**

This course is designed to assess the interests, attitudes, aptitudes and readiness as it relates to career, employment and/or educational goals. The content of the instructional materials focuses on the following
topics: personal development, career exploration, goal setting and the development of a written plan of action.

No degrees offered.

No diplomas offered.

No certificates offered.

Pathways to Careers

Pathways to Careers, formerly known as Pathways to Employment, a nationally recognized program, integrates basic math and reading education with occupational training which gives students the opportunity to earn credit-bearing certificates. Pathways to Careers prepares students to earn their GED or improve academic skills for continued college success. The program provides a variety of student support services and helps students obtain work-readiness certificates.

Pathways to Careers supports the following CPCC certificates and credentials:

- Human Services Technology with a Specialization in Developmental Disabilities (C4538A-C1)
- Air Conditioning, Heating and Refrigeration Technology with a Specialization in Heating Service (C35100-C1)
- Air Conditioning, Heating and Refrigeration Technology with a Specialization in Air Conditioning Service (C35100-C2)
- Office Administration Specialist Certificate (C25370-C5)
- Welding Technology Certificate with a Specialization in Entry-Level Welding (C50420-C2)
- Computer Integrated Machining Technology certificate with a Specialization in Basic Machining Skills (C50210-C3)
- Credentials
  - NC State Early Childhood Credential
  - Career Readiness Certificate
  - Workforce Readiness Certificate

No degrees offered.

No diplomas offered.

Human Services Technology with a Specialization in Developmental Disabilities (C4538A-C1)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDT 110</td>
</tr>
<tr>
<td>DDT 120</td>
</tr>
<tr>
<td>DDT 210</td>
</tr>
<tr>
<td>DDT 220</td>
</tr>
<tr>
<td>DDT 230</td>
</tr>
<tr>
<td>DDT 240</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Heating Service (C35100-C1)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
</tr>
<tr>
<td>ELC 111</td>
</tr>
<tr>
<td>AHR 112</td>
</tr>
<tr>
<td>AHR 130</td>
</tr>
<tr>
<td>AHR 180</td>
</tr>
<tr>
<td>or COE 111</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Air Conditioning Service (C35100-C2)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
</tr>
<tr>
<td>ELC 111</td>
</tr>
<tr>
<td>AHR 113</td>
</tr>
<tr>
<td>AHR 130</td>
</tr>
<tr>
<td>AHR 180</td>
</tr>
</tbody>
</table>
Office Administration Specialist Certificate (C25370-C5)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CiS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CiS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 13

Welding Technology Certificate with a Specialization in Entry-Level Welding (C50420-C2)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD 115</td>
<td>SMAW (Stick) Plate</td>
<td>5.0</td>
</tr>
<tr>
<td>WLD 121</td>
<td>GMAW (MIG) FCAW/Plate</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 131</td>
<td>GTAW (TIG) Plate</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 141</td>
<td>Symbols and Specifications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 18

Computer Integrated Machining Technology certificate with a Specialization in Basic Machining Skills (C50210-C3)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 111</td>
<td>Machining Technology I</td>
<td>6.0</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Blueprint Reading-Machining I</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 114</td>
<td>Introduction to Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 151</td>
<td>Machining Calculations</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 12

Credentials

NC State Early Childhood Credential

Workforce Readiness Certificate

Career Readiness Certificate
College-Level Programs
College-Level Programs

CPCC has developed a variety of affordable, two-year degree and distance learning programs that respond to the immediate needs of the local workforce, including the areas of science, technology, engineering, math and many others.

It’s this commitment to affordability that gives CPCC students the opportunity to earn a quality education at a fraction of the cost of other local higher education institutions.

Program Types

CPCC offers a variety of learning programs to accommodate students’ lifestyles, while achieving their educational goals. These include:

- **College Transfer Programs** for students who are interested in completing their general education requirements prior to transferring to a four-year institution. Students who intend to transfer to a four-year college or university should seek the A.A., A.S., or A.F.A. degrees.
- **Associate in Applied Science degrees, diplomas and certificates** for students who are interested in a complete career-oriented program.
- an **Associate in General Education program** for students who want to meet a special personal or vocational objective.

Associate in Applied Science Degrees, Diplomas & Certificates

Introduction

The programs in the following section are primarily designed for students who intend to enter the workforce upon graduation. Certain programs are available at all campuses. Others are available only at certain campuses. However, many general education requirements are offered at all CPCC campuses.

Some two-year degree programs also have one-year diplomas, as well as certificates that require less than one year of full-time study.

Requirements

These degrees are awarded after completion of a minimum of 64 semester credit hours, or the number of credit hours specified by each area of study, including the required general education courses for that area.

A minimum of 21 credit hours must be earned at CPCC. Official copies of high school and all other college/university transcripts must be on file in the Student Records office.

Associate in Applied Science Degrees

Associate in Applied Science Degrees are awarded in the following areas:

- Accounting (p. 77)
- Advertising and Graphic Design (p. 79)
- Air Conditioning, Heating and Refrigeration Technology (p. 80)
- Architectural Technology (p. 84)
- Associate Degree Nursing (p. 200)
- Automotive Systems Technology (p. 86)
- Baking and Pastry Arts (p. 90)
- Business Administration (p. 93)
  - Human Resources Management Concentration (p. 93)
  - International Business Concentration (p. 93)
  - Marketing and Retailing Concentration (p. 93)
- Cardiovascular Technology (p. 101)
- Civil Engineering Technology (p. 103)
- Computer Engineering Technology (p. 106)
- Computer-Integrated Machining Technology (p. 121)
- Computer Technology Integration (p. 109)
- Construction Management Technology (p. 125)
- Criminal Justice Technology (p. 129)
- Culinary Arts (p. 132)
- Dental Hygiene (p. 135)
- Diesel and Heavy Equipment Technology (p. 136)
- Early Childhood Education (p. 139)
- Electrical Engineering Technology (p. 142)
- Electrical Systems Technology (p. 146)
- Electronics Engineering Technology (p. 151)
- Fire Protection Technology (p. 153)
- Geomatics Technology (p. 156)
- Geospatial Technology (p. 159)
- Graphic Arts and Imaging Technology (p. 164)
  - Flexography Concentration (p. 164)
- Health Information Technology (p. 167)
- Horticulture Technology (p. 169)
- Hospitality Management (p. 172)
- Human Services Technology (p. 176)
  - Developmental Disabilities Concentration (p. 176)
  - Substance Abuse Concentration (p. 176)
- Interior Design (p. 182)
- Interpreter Education (p. 183)
- Manufacturing Technology (p. 185)
- Mechanical Engineering Technology (p. 186)
- Mechatronics Engineering Technology (p. 189)
- Medical Assisting (p. 191)
- Medical Laboratory Technology (p. 193)
- Medical Office Administration (p. 195)
- Nondestructive Examination Technology (p. 196)
- Nursing, Associate Degree (https://nextcatalog.cpcc.edu/collegelevelprograms/associateinappliedscienceaasdegreesdiplomasampcertificates/nursingassociatedegree)
- Occupational Therapy Assistant (p. 201)
- Office Administration (p. 202)
  - Legal Concentration (p. 202)
- Paralegal Technology (p. 209)
- Pharmacy Technology (p. 211)
- Physical Therapist Assistant (p. 213)
- Respiratory Therapy (p. 214)
- Simulation and Game Development (p. 216)
- Surgical Technology (p. 219)
• Sustainability Technologies (p. 220)
• Turfgrass Management Technology (p. 222)
• Welding Technology (p. 224)

**Diplomas**

Diplomas are awarded after completion of a minimum of 36 semester credit hours, or the number of credit hours specified by the specific program of study. For program completion, a minimum of 12 credit hours must be earned at CPCC. Official copies of high school and all other college/university transcripts must be on file in the Student Records Office.

**Diplomas are awarded in the following areas**

• Accounting (p. 77)
• Air Conditioning, Heating and Refrigeration Technology (p. 80)
• Automotive Systems Technology (p. 86)
• Collision Repair and Refinishing Technology (p. 105)
• Computer Engineering Technology - Computer Hardware (p. 106)
• Computer-Integrated Machining Technology (p. 121)
• Computer Technology Integration – Cyber Crime and Digital Forensics (p. 109)
• Computer Technology Integration – Oracle Administration (p. 109)
• Computer Technology Integration – SQL Server Administration (p. 109)
• Computer Technology Integration – .NET Software Development (p. 109)
• Computer Technology Integration - .NET Software Development (p. 109)
• Computer Technology Integration – Cyber Crime and Information Security (p. 109)
• Computer Technology Integration – Information Technology (p. 109)
• Computer Technology Integration – Geospatial (p. 109)
• Computer Technology Integration – Network Administration (p. 109)
• Computer Technology Integration – Network Infrastructure (p. 109)
• Computer Technology Integration – Linux Networking (p. 109)
• Computer Technology Integration – Web Technologies (p. 109)
• Concepts of Manufacturing Support Technology (p. 186)
• Concepts of Mechanical Design Technology (p. 186)
• Dental Assisting (p. 134)
• Diesel and Heavy Equipment Technology Diploma (p. 136)
• Diesel and Heavy Equipment Technology/Construction Equipment Diploma (p. 136)
• Electrical Engineering Technology – Automation (p. 142)
• Electrical Engineering Technology – Electrical Wiring CAD Design (p. 142)
• Electrical Engineering Technology – Power Systems & Alternative Energy Technology (p. 142)
• Electrical Systems Technology (p. 146)
• Electronics Engineering Technology – Communications Systems (p. 151)
• Electronics Engineering Technology – Instrumentation & Control (p. 151)
• Foodservice Technology (p. 155)
• Geospatial Technology – Geography (p. 159)
• Geospatial Technology – Geographic Information Science (p. 159)
• Geospatial Technology – Geomatics (p. 159)
• Horticulture Technology (p. 169)
• Hotel Management (p. 172)
• Medical Assisting (p. 191)
• Office Systems Technology/General Clerical Skills (p. 202)
• Office Systems Technology/Word Processing Operator (p. 202)
• Paralegal Technology (p. 209)
• Pre-Architecture (p. 84)
• Residential Interior Decoration (p. 182)
• Restaurant Management (p. 172)
• Simulation and Game Development: Game Development (p. 216)
• Turfgrass Management Technology (p. 222)
• Welding Technology (p. 224)

**Certificates**

Certificates are awarded in the following areas:

• Basic Law Enforcement Training (p. 92)
• Cytotechnology (p. 133)
• Infant/Toddler Care (p. 139)
• Lateral Entry Teacher (p. 185)
• Nursing Assistant (p. 200)
• School-Age Care (p. 139)

**Specialized Certificates**

Special short-term certificates are offered in a number of programs. Courses in certificate programs are taken from diploma and degree programs and may be completed within 12 to 18 semester credit hours. A student may earn certificates that build to earning a diploma or degree. A student may earn a certificate(s) in the same semester that he or she earns a degree or diploma. To earn a certificate the following conditions must have been fulfilled:

1. Official copies of all high school and college transcripts are in the student’s folder at CPCC (when this is a certification requirement).
2. Completion of required courses in the student’s program of study.
3. The final thirty percent (30 percent) of credits earned must be from CPCC.
4. A GPA of 2.0 or higher within the certificate program.

**Approved General Education Courses for A.A.S. Degree**

**Humanities/Fine Arts**

**Art**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Dance**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### Accounting

The Accounting curriculum is designed to provide students with the knowledge and skills necessary for employment and growth in the accounting profession. Using the “language of business” and technology resources, accountants assemble, analyze, process and communicate information about financial operations.

In addition to course work in accounting principles, theories and practice, students will study business law, finance and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

### Accounting (A25100)

#### Degree Awarded

The Associate in Applied Science Degree – Accounting is awarded by the College upon completion of this program.

A Diploma in accounting is available upon the completion of 46 credit hours of specified, required courses.

Certificates in Accounting and Tax are available upon completion of 18 credit hours of specified, required courses.

#### Admissions

- Complete required CPCC application.
- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts to the Admissions/Record Center.
- Request college transcripts to be evaluated for transfer credit.

---

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3.0</td>
</tr>
</tbody>
</table>
• Accounting, business and economic college level courses taken more than 10 years ago will not be accepted.
• CPCC placement tests are required in reading comprehension and algebra. Developmental courses in English and mathematics are available for students to build basic skills and knowledge. All needed developmental courses must be completed prior to beginning ACC, BUS, ECM, INT, LOG and MKT prefix courses.
• A counseling/orientation appointment follows placement testing.
• See Program Chair for advising of course sequence and registration advisement. Call 704.330.6595 for an appointment.
• Many courses have prerequisites or co-requisites. Check the Courses section for details.

Transferring to Senior Institution
To transfer courses more effectively, students intending to transfer to a senior institution should check with that college for its general education, program and GPA requirements.

Students enrolled in the Accounting program who think that they may decide to transfer to a senior institution should take MAT 161 or higher.

Contact Information
The Accounting program is in the Business and Accounting Division. For more information, call 704.330.6595.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>Select one of the following: 3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select one of the following: 3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 121</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 220</td>
<td>Intermediate Accounting I</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 129</td>
<td>Individual Income Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 150</td>
<td>Accounting Software Applications</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 149</td>
<td>Intro to Acc Spreadsheets</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 225</td>
<td>Cost Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 225</td>
<td>Business Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 130</td>
<td>Business Income Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 221</td>
<td>Intermediate Accounting II</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 269</td>
<td>Auditing &amp; Assurance Services</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 240</td>
<td>Governmental &amp; Not-For-Profit Accounting</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Technical Electives

Select 4 credits of the following: 4.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 140</td>
<td>Payroll Accounting</td>
<td></td>
</tr>
<tr>
<td>ACC 151</td>
<td>Accounting Spreadsheet Applications</td>
<td></td>
</tr>
<tr>
<td>BUS 125</td>
<td>Personal Finance</td>
<td></td>
</tr>
<tr>
<td>BUS 210</td>
<td>Investment Analysis</td>
<td></td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
<td></td>
</tr>
<tr>
<td>BUS 121</td>
<td>Business Math</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 69
### Accounting Diploma (D25100-D1)

The Accounting Diploma is designed to provide the student with a concentrated course of study in the field of accounting. Upon completion of the 15 courses, a diploma will be awarded by the college. The courses for the Accounting Diploma may be applied toward the Associate in Applied Science Degree – Accounting.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 121</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 129</td>
<td>Individual Income Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 220</td>
<td>Intermediate Accounting I</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 130</td>
<td>Business Income Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 149</td>
<td>Intro to Acc Spreadsheets</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 150</td>
<td>Accounting Software Applications</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 221</td>
<td>Intermediate Accounting II</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 225</td>
<td>Cost Accounting</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Electives**

Select 2 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 140</td>
<td>Payroll Accounting</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 240</td>
<td>Governmental &amp; Not-For-Profit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACC 250</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACC 269</td>
<td>Auditing &amp; Assurance Services</td>
<td></td>
</tr>
<tr>
<td>BUS 225</td>
<td>Business Finance</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: **15**

### Accounting Certificate with a Specialization in Tax (C25100-C2)

The certificate is designed to provide the student with a concentrated course of study in the field of taxation. Upon completion of the six courses, a certificate will be awarded by the College. The courses for the certificate may be applied toward the Associate in Applied Science Degree – Accounting.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 129</td>
<td>Individual Income Taxes</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 140</td>
<td>Payroll Accounting</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 130</td>
<td>Business Income Taxes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: **15**

### Advertising + Graphic Design

The future belongs to those who are able to solve problems with courageous creativity. The Advertising + Graphic Design curriculum is designed to provide students with the knowledge and skills to be the next creative leaders in our community. Graduates of the program are prepared for employment within the creative industries sector, including graphic design firms, advertising agencies, marketing communications and in-house creative groups.

Students will have the opportunity to learn the development of concepts and design for visual communication materials such as ads, corporate and brand identity programs, print and interactive media.

### Advertising + Graphic Design (A30100)

**Degree Awarded**

The Associate in Applied Science Advertising + Graphic Design Degree is awarded by the College upon completion of this program.

**Admissions**

- High school diploma or equivalent is required.
- Placement tests determine enrollment in English (ENG) and mathematics (MAT) courses.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
Contact Information
The Advertising + Graphic Design program is in the Applied Technologies Division at the Harper Campus. For more information contact Kenn Compton at kenn.compton@cpcc.edu or 704.330.4481; or Courtney Kimball at courtney.kimball@cpcc.edu, 704.330.4485.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements (Continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRD 110</td>
<td>Typography I</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 280</td>
<td>Portfolio Design</td>
<td>4.0</td>
</tr>
<tr>
<td>GRD 121</td>
<td>Drawing Fundamentals I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRD 131</td>
<td>Illustration I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRD 141</td>
<td>Graphic Design I</td>
<td>4.0</td>
</tr>
<tr>
<td>GRD 142</td>
<td>Graphic Design II</td>
<td>4.0</td>
</tr>
<tr>
<td>GRD 241</td>
<td>Graphic Design III</td>
<td>4.0</td>
</tr>
<tr>
<td>GRD 151</td>
<td>Computer Design Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 152</td>
<td>Computer Design Techniques I</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 111</td>
<td>Typography II</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 113</td>
<td>History of Graphic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 180</td>
<td>Interactive Design</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 242</td>
<td>Graphic Design IV</td>
<td>4.0</td>
</tr>
<tr>
<td>GRD 282</td>
<td>Advertising Copywriting</td>
<td>2.0</td>
</tr>
<tr>
<td>COE 221</td>
<td>Co-Op Work Experience V</td>
<td>1.0</td>
</tr>
<tr>
<td>GRD 265</td>
<td>Digital Print Production</td>
<td>3.0</td>
</tr>
<tr>
<td>GRD 285</td>
<td>Client/Media Relations</td>
<td>2.0</td>
</tr>
</tbody>
</table>

General Education Requirements (Continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td>6.0</td>
</tr>
<tr>
<td>ART 131</td>
<td>Drawing I</td>
<td></td>
</tr>
<tr>
<td>ART 132</td>
<td>Drawing II</td>
<td></td>
</tr>
<tr>
<td>GRD 263</td>
<td>Illustrative Imaging</td>
<td></td>
</tr>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td></td>
</tr>
<tr>
<td>WEB 140</td>
<td>Web Development Tools</td>
<td></td>
</tr>
<tr>
<td>GRD 132</td>
<td>Illustration II</td>
<td></td>
</tr>
<tr>
<td>MKT 220</td>
<td>Advertising and Sales Promotion</td>
<td></td>
</tr>
<tr>
<td>ART 264</td>
<td>Digital Photography I</td>
<td></td>
</tr>
<tr>
<td>ART 265</td>
<td>Digital Photography II</td>
<td></td>
</tr>
<tr>
<td>PRN 155</td>
<td>Screen Printing I</td>
<td></td>
</tr>
<tr>
<td>PRN 156</td>
<td>Screen Printing II</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 74

No diplomas offered.

No certificates offered.

Air Conditioning, Heating and Refrigeration Technology

The Air Conditioning, Heating and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls and safety. The program covers air conditioning, furnaces, heat pumps, tools and instruments, residential building codes, residential system sizing and advanced comfort systems.

Graduates should be able to assist in the start-up, preventive maintenance, service, repair and/or installation of residential and light commercial systems and demonstrate an understanding of system selection and balance and advanced systems.
Air Conditioning, Heating and Refrigeration Technology (A35100)

Degree Awarded
An A.A.S. Degree in Air Conditioning, Heating and Refrigeration Technology is awarded by the College upon completion of this program.

Admissions
• Completion of a high school diploma is required for entering A.A.S. program.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information
For more information, call 704.330.4446 or 704.330.4408.

General Education Requirements
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
<td>Introduction to Refrigeration</td>
<td>5.0</td>
</tr>
<tr>
<td>AHR 112</td>
<td>Heating Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 113</td>
<td>Comfort Cooling</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 114</td>
<td>Heat Pump Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 130</td>
<td>HVAC Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 211</td>
<td>Residential System Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 212</td>
<td>Advanced Comfort Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 213</td>
<td>HVACR Building Code</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 115</td>
<td>Refrigeration Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 240</td>
<td>Hydronic Heating</td>
<td>2.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 225</td>
<td>Commercial System Design</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 140</td>
<td>All-Weather Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 215</td>
<td>Commercial HVAC Controls</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Technical Electives
Select 3 credits of the following: 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 180</td>
<td>HVACR Customer Relations</td>
<td></td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>BUS 230</td>
<td>Small Business Management</td>
<td></td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
<td></td>
</tr>
<tr>
<td>ELC 220</td>
<td>Photovoltaic System Technology</td>
<td></td>
</tr>
<tr>
<td>ELC 221</td>
<td>Advanced Photovoltaic System Designs</td>
<td></td>
</tr>
<tr>
<td>AHR 235</td>
<td>Refrigeration Design</td>
<td></td>
</tr>
<tr>
<td>ELC 125</td>
<td>Diagrams and Schematics</td>
<td></td>
</tr>
<tr>
<td>ELC 128</td>
<td>Introduction to Programmable Logic Controller</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Air Conditioning, Heating and Refrigeration Technology Diploma (D35100)

The Air Conditioning, Heating and Refrigeration Technology curriculum, provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. In addition, the A.A.S. degree covers residential building codes, residential system sizing and advanced comfort systems.

Diploma graduates should be able to assist in the start-up, preventive maintenance, service, repair and/or installation of residential and light commercial systems. A.A.S. degree graduates should be able to demonstrate an understanding of system selection and balance and advanced systems.

Diploma Awarded

A Diploma in Air Conditioning, Heating and Refrigeration Technology is awarded by the college upon completion of this program.

Graduates may apply for advanced standing in the Air Conditioning, Heating and Refrigeration Technology Degree Program.

Note: Basic tools are required for some courses. A list may be obtained from the instructor.

Admissions

- Completion of a high school diploma or equivalent is required as the foundation of a career in this area.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information

For more information, call 704.330.4446 or 704.330.4408.

Notes: Any student who has completed a diploma level general education course must take the appropriate associate degree general education course if he or she chooses to pursue the higher credential.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
<td>Introduction to Refrigeration</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 112</td>
<td>Heating Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 113</td>
<td>Comfort Cooling</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 114</td>
<td>Heat Pump Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AHR 130</td>
<td>HVAC Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 213</td>
<td>HVACR Building Code</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 115</td>
<td>Refrigeration Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 140</td>
<td>All-Weather Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>AHR 180</td>
<td>HVACR Customer Relations</td>
<td>1.0</td>
</tr>
<tr>
<td>AHR 211</td>
<td>Residential System Design</td>
<td>3.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Air Conditioning, Heating and Refrigeration Technology with a Specialization in Heating Service (C35100-C1)

Major Requirements
AHR 110 Introduction to Refrigeration 5.0
ELC 111 Introduction to Electricity 3.0
AHR 112 Heating Technology 4.0
AHR 130 HVAC Controls 3.0
AHR 180 HVACR Customer Relations 1.0
or COE 111 Co-Op Work Experience I

Total Credits 16

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Air Conditioning Service (C35100-C2)

Major Requirements
AHR 110 Introduction to Refrigeration 5.0
ELC 111 Introduction to Electricity 3.0
AHR 113 Comfort Cooling 4.0
AHR 130 HVAC Controls 3.0
AHR 180 HVACR Customer Relations 1.0
or COE 111 Co-Op Work Experience I

Total Credits 16

Air Conditioning, Heating and Refrigeration Technology with a Specialization in All Weather Systems Service (C35100-C3)

Note: Requires a prerequisite of C35100-C2

Major Requirements
AHR 110 Introduction to Refrigeration 5.0
AHR 112 Heating Technology 4.0
AHR 114 Heat Pump Technology 4.0
AHR 213 HVAC Building Code 2.0
AHR 140 All-Weather Systems 2.0

Total Credits 17

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Commercial System Design and Maintenance (C35100-C4)

Major Requirements
AHR 110 Introduction to Refrigeration 5.0
AHR 213 HVACR Building Code 2.0
AHR 140 All-Weather Systems 2.0
AHR 180 HVACR Customer Relations 1.0
AHR 215 Commercial HVAC Controls 2.0
AHR 225 Commercial System Design 3.0
AHR 240 Hydronic Heating 2.0

Total Credits 17

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Refrigeration Service (C35100-C5)

Major Requirements
AHR 110 Introduction to Refrigeration 5.0
ELC 111 Introduction to Electricity 3.0
AHR 130 HVAC Controls 3.0
AHR 115 Refrigeration Systems 2.0
AHR 180 HVACR Customer Relations 1.0
AHR 235 Refrigeration Design 3.0

Total Credits 17

Air Conditioning, Heating and Refrigeration Technology with a Specialization in HVAC Contracting (C35100-C6)

Major Requirements
AHR 211 Residential System Design 3.0
AHR 213 HVACR Building Code 2.0
AHR 225 Commercial System Design 3.0
BPR 130 Print Reading-Construction 3.0
BUS 230 Small Business Management 3.0
or BUS 139 Entrepreneurship I

Total Credits 14
Air Conditioning, Heating and Refrigeration Technology with a Specialization in AHR Controls (C35100-C7)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 130</td>
<td>HVAC Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 212</td>
<td>Advanced Comfort Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 125</td>
<td>Diagrams and Schematics</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 128</td>
<td>Introduction to Programmable Logic Controller</td>
<td>3.0</td>
</tr>
<tr>
<td>AHR 215</td>
<td>Commercial HVAC Controls</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits: 17

Back to Top

Air Conditioning, Heating and Refrigeration Technology with a Specialization in Introduction to Energy (C35100-C8)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
<td>Introduction to Refrigeration</td>
<td>5.0</td>
</tr>
<tr>
<td>AHR 112</td>
<td>Heating Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>EUS 110</td>
<td>Introduction to Electric Utility Industry</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits: 16

Back to Top

Architectural Technology

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering and construction professions as well as positions in industry and government.

Architectural Technology (A40100)

**Degree Awarded**
The Associate of Applied Science Degree - Architectural Technology is awarded by the College upon completion of this program.

**Admissions**
- A high school diploma or equivalent is required.

- CPCC Placement tests are required in English and mathematics. Developmental Studies for math and English classes are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students should see a faculty advisor before registration.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Note: The curriculum at Central Piedmont Community College includes emphasis on computer-aided drafting (CAD) and related computer courses to prepare graduates for employment in the expanding CAD area within the field of Architectural Technology.

**Contact Information**
For more information, call 704.330.6548 or visit www.cpcc.edu/arc_id/home.htm

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>&amp; MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>or MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>&amp; MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
</tbody>
</table>

ART 111  Art Appreciation  3.0

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>
Central Piedmont Community College

Pre-Architecture Diploma (D40100-D1)

The Pre-Architecture Diploma is a one year program designed to prepare prospective students for an accredited, professional architecture education. The diploma will also equip the student with basic skills that can lead to employment in the field of architecture or one of the associated professions.

Completion of this diploma will fulfill approximately 24 transferable credit hours of general education requirements. This will allow the student a high degree of focus on the major program area during the first two years of professional study in architecture. Additionally, the required Architectural Technology coursework will both aid the student in developing efficient work/study habits and serve as an introduction to the architecture profession.

While not ensuring acceptance into any Bachelor of Architecture program, the Pre-Architecture Diploma will provide a vehicle for talented students to display ability and excellence in college level work. It will also provide an opportunity to build an artistic portfolio which is required for acceptance to most accredited professional architecture programs.

Pre-Architecture Diploma (D40100-D1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 213</td>
<td>Design Project</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 230</td>
<td>Environmental Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 113</td>
<td>Residential Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 131</td>
<td>Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 132</td>
<td>Specifications &amp; Contracts</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 250</td>
<td>Survey of Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 133</td>
<td>Construction Document Analysis</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 225</td>
<td>Architectural Building Information Modeling I</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 141</td>
<td>Elementary Structures for Architecture</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 212</td>
<td>Commercial Constr Tech</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Technical Electives

Select 4 credits of the following: 4.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 231</td>
<td>Architectural Presentations</td>
</tr>
<tr>
<td>ARC 262</td>
<td>Architectural Animation &amp; Video</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>ARC 160</td>
<td>Residential Design</td>
</tr>
<tr>
<td>ARC 220</td>
<td>Advanced Architectural CAD</td>
</tr>
<tr>
<td>ARC 235</td>
<td>Architectural Portfolio</td>
</tr>
<tr>
<td>ART 131</td>
<td>Drawing I</td>
</tr>
<tr>
<td>ART 244</td>
<td>Watercolor</td>
</tr>
<tr>
<td>ARC 264</td>
<td>Digital Architecture</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
</tr>
<tr>
<td>ARC 192</td>
<td>Select Seminar in Arch Tech</td>
</tr>
<tr>
<td>ARC 226</td>
<td>Architectural Building Information Modeling II</td>
</tr>
<tr>
<td>CST 241</td>
<td>Planning/Estimating I</td>
</tr>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
</tr>
<tr>
<td>ARC 221</td>
<td>Architectural 3-D CAD</td>
</tr>
</tbody>
</table>

Pre-Architecture Diploma (D40100-D1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credits</td>
<td>67</td>
<td></td>
</tr>
</tbody>
</table>

Building Information Modeling (BIM) Diploma (D40100-D2)

The diploma in BIM provides specialized, hands-on training for technicians, drafters, architects, engineers, BIM project managers, and other design/construction professionals seeking to create and work on intelligent building models in an integrated construction documentation environment.

Building Information Modeling (BIM) Diploma (D40100-D2)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 113</td>
<td>Residential Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 250</td>
<td>Survey of Architecture</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 235</td>
<td>Architectural Portfolio</td>
<td>3.0</td>
</tr>
<tr>
<td>or ARC 231</td>
<td>Architectural Presentations</td>
<td></td>
</tr>
<tr>
<td>ART 131</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
<tr>
<td>or ART 244</td>
<td>Watercolor</td>
<td></td>
</tr>
</tbody>
</table>

Building Information Modeling (BIM) Diploma (D40100-D2)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credits</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Prior to beginning work on this diploma, students are strongly urged to consult with an advisor or faculty member at both CPCC and the university to which he/she plans to apply in the future concerning transfer courses and requirements.
General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>or MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 230</td>
<td>Environmental Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 113</td>
<td>Residential Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 131</td>
<td>Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 133</td>
<td>Construction Document Analysis</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 141</td>
<td>Elementary Structures for Architecture</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 220</td>
<td>Advanced Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 212</td>
<td>Commercial Constr Tech</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 221</td>
<td>Architectural 3-D CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 262</td>
<td>Architectural Animation &amp; Video</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Technical Elective

Select 2 credits of the following: 2.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 132</td>
<td>Specifications &amp; Contracts</td>
<td></td>
</tr>
<tr>
<td>ARC 210</td>
<td>Intro to Sustain Design</td>
<td></td>
</tr>
<tr>
<td>ARC 231</td>
<td>Architectural Presentations</td>
<td></td>
</tr>
<tr>
<td>ARC 235</td>
<td>Architectural Portfolio</td>
<td></td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 44

Architectural Technology Certificates (C40100)

Architectural Technology Certificate with a Specialization in Computer Aided Design/Drafting (C40100-C1)

This certificate prepares individuals for CAD drafting positions within the field of architecture. Course work includes work in basic architectural drafting techniques, reading construction documents, 2D and 3D CAD drawing, rendering, modeling, animation and video of building interiors and exteriors.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 133</td>
<td>Construction Document Analysis</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 225</td>
<td>Architectural Building Information Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 220</td>
<td>Advanced Architectural CAD</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Electives

Select one of the following: 2.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 262</td>
<td>Architectural Animation &amp; Video</td>
<td></td>
</tr>
<tr>
<td>ARC 226</td>
<td>Architectural Building Information Modeling</td>
<td></td>
</tr>
<tr>
<td>ARC 264</td>
<td>Digital Architecture</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 13

Note: ARC 114M, Architectural CAD-MicroStation (1, 3, 0, 0, 2), may be substituted for ARC 220 or ARC 262.

Architectural Technology Certificate with a Specialization in Residential Architectural Technology (C40100-C2)

Graduates from this certificate should be able to provide support to the residential architectural design industry. This certificate is also available to students enrolled in Career & College Promise.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td>4.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 113</td>
<td>Residential Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 160</td>
<td>Residential Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 133</td>
<td>Construction Document Analysis</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 17

Automotive Systems Technology

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension,
automatic transmission/ transaxles, engine repair, climate control and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

**Automotive Systems Technology (A60160)**

**Degree Awarded**

The Associate in Applied Science Degree - Automotive Systems Technology is awarded by the College upon completion of this program.

**Admissions**

- A high school diploma or equivalent is required.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

**Program Accreditation**

The BMW-ADP and GM-ASEP programs are Master Certified by the National Automotive Technician Foundation (NATEF) Automotive Service Excellence (A.S.E.).

**Program Manufacturer Partners**

General Motors’ Automotive Service Excellence Program (ASEP), and BMW (ADP) are options for this associate degree program. In addition, CPCC currently offers a Honda Professional Automotive Career Training (PACT) program certificate as an Express Service Technician. Call the Transport Systems Division Cooperative Education Coordinator at 704.330.4157 or division office 704.330.4121 for manufacturer program information.

Note: Students must furnish required hand tools and protective clothing, as well as textbooks. A list of these items can be obtained from an instructor or program chair by calling 704.330.4183.

**Contact Information**

The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, 704.330.4183 or 704.330.4121.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
</tbody>
</table>

**Select 3 credits of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN 140</td>
<td>Transportation Climate Control</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 145</td>
<td>Advanced Transportation Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 141</td>
<td>Suspension &amp; Steering Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 151</td>
<td>Brake Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 181</td>
<td>Engine Performance 1</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Admissions
- Completion of a high school diploma or equivalent is required as the foundation of a career in this area.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation
This program is Master Certified by the National Automotive Technician Foundation (NATEF) Automotive Service Excellence (A.S.E.).

Contact Information
The Automotive Systems Technology program is in the Transport Systems Technologies Division. For more information, call 704.330.4183 or 704.330.4121.

Choose 42 hours from Major and Related Course Requirements listed below:

General Education Requirements
<table>
<thead>
<tr>
<th>Subject</th>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG</td>
<td>111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT</td>
<td>115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN</td>
<td>110 Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN</td>
<td>120 Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN</td>
<td>140 Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT</td>
<td>141 Suspension &amp; Steering Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>151 Brake Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>181 Engine Performance 1</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>183 Engine Performance 2</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT</td>
<td>186 Engine Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>188 Engine Repair Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>AUT</td>
<td>221 Automatic Transmissions/Transaxles</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>231 Manual Transmissions/Transaxles/Drive Trains</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT</td>
<td>116 Engine Repair Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>AUT</td>
<td>116A Engine Repair Lab</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Technical Electives
Select 1 credit of the following:
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE</td>
<td>112 Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE</td>
<td>122 Co-Op Work Experience II</td>
<td>1.0</td>
</tr>
<tr>
<td>COE</td>
<td>132 Co-Op Work Experience III</td>
<td>1.0</td>
</tr>
<tr>
<td>COE</td>
<td>212 Co-Op Work Experience IV</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN</td>
<td>120A Basic Transportation Electrical Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT</td>
<td>141A Suspension &amp; Steering Lab</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits: 44

Automotive Systems Technology Diploma
(D60160)

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/ transaxles, engine repair, climate control and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

This diploma is also available for students enrolled in Career & College Promise.

Diploma Awarded
A diploma in Automotive Systems Technology is awarded by the College upon completion of this program.

• Automotive Systems Technology Certificate Specialization in Vehicle Maintenance (C60160-C6)
• Automotive Systems Technology Certificate Specialization in Basic Engine and Electrical (C60160-C7)
1. Automotive Systems Technology Certificate Specialization in Advanced Dual and Electronic Systems (C60160-C8)
2. Automotive Systems Technology Certificate Specialization in Advanced Engine Performance Including Chassie Electronics (C60160-C9)
3. Automotive Systems Technology Certificate Specialization in Vehicle Line Dry Systems (C60160-10)
4. Automotive Systems Technology Certificate Specialization in Brake and Alignment (C60160-11)

**Automotive Systems Technology Certificate Specialization in Vehicle Maintenance (C60160-C6)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT 141</td>
<td>Suspension &amp; Steering Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 151</td>
<td>Brake Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 116</td>
<td>Engine Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 114</td>
<td>Safety and Emissions</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT 141A</td>
<td>Suspension &amp; Steering Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>AUT 151A</td>
<td>Brakes Systems Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>AUT 116A</td>
<td>Engine Repair Lab</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

**Automotive Systems Technology Certificate Specialization in Advanced Engine Performance Including Chassie Electronics (C60160-C9)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 145</td>
<td>Advanced Transportation Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 181</td>
<td>Engine Performance 1</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 183</td>
<td>Engine Performance 2</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT 163</td>
<td>Advanced Automotive Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Automotive Systems Technology Certificate Specialization in Vehicle Line Dry Systems (C60160-10)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT 116</td>
<td>Engine Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN 140A</td>
<td>Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT 116A</td>
<td>Engine Repair Lab</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Automotive Systems Technology Certificate Specialization in Brake and Alignment (C60160-11)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>AUT 141</td>
<td>Suspension &amp; Steering Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 151</td>
<td>Brake Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT 114</td>
<td>Safety and Emissions</td>
<td>2.0</td>
</tr>
<tr>
<td>AUT 141A</td>
<td>Suspension &amp; Steering Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>AUT 151A</td>
<td>Brakes Systems Lab</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits 17

Notes
- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.
- In the Baking and Pastry Arts program, there are more applications for admittance than space available. Criteria for admission include scores on standardized tests, interview, past academic performance and experience in the field of interest.

Contact Information
The Baking and Pastry Arts program is in the Hospitality Education Division. For more information, call 704.330.4638.

General Education Requirements

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
</tbody>
</table>
REL 221  Religion in America
MUS 210  History of Rock Music

Select 3 credits of the following:  3.0
ANT 210  General Anthropology
ANT 220  Cultural Anthropology
ECO 151  Survey of Economics
ECO 251  Principles of Microeconomics
ECO 252  Principles of Macroeconomics
GEO 111  World Regional Geography
HIS 111  World Civilizations I
HIS 112  World Civilizations II
HIS 131  American History I
HIS 132  American History II
POL 120  American Government
POL 210  Comparative Government
POL 220  International Relations
PSY 150  General Psychology
PSY 241  Developmental Psychology
PSY 281  Abnormal Psychology
SOC 210  Introduction to Sociology
SOC 213  Sociology of the Family
SOC 225  Social Diversity
ANT 221  Comparative Cultures
POL 110  Introduction to Political Science
PSY 237  Social Psychology
SOC 220  Social Problems

Select 3 credits of the following:  3.0
MAT 115  Mathematical Models
MAT 140  Survey of Mathematics
MAT 121  Algebra/Trigonometry I
MAT 122  Algebra/Trigonometry II
MAT 155  Statistical Analysis
MAT 161  College Algebra
MAT 171  Precalculus Algebra
MAT 172  Precalculus Trigonometry
MAT 175  Precalculus
MAT 223  Applied Calculus
MAT 271  Calculus I
MAT 272  Calculus II
MAT 273  Calculus III

Major Requirements
BPA 150  Artisan & Specialty Bread  4.0
BPA 210  Cake Design and Decorating  3.0
BPA 250  Dessert and Bread Production  5.0
BPA 260  Pastry and Baking Marketing  3.0
CUL 110  Sanitation and Safety  2.0
CUL 160  Baking I  3.0
HRM 245  Human Resource Management-Hospitality  3.0
COE 112  Co-Op Work Experience I  2.0
BPA 130  European Cakes and Tortes  3.0
BPA 165  Hot and Cold Desserts  3.0
BPA 220  Confection Artistry  4.0

BPA 230  Chocolate Artistry  3.0
BPA 240  Plated Desserts  3.0
CUL 112  Nutrition for Foodservice  3.0
CUL 150  Food Science  2.0
HRM 220  Cost Control-Food and Beverage  3.0
BPA 230A  Chocolate Artistry Lab  1.0
CUL 111  Success in Hospitality Studies  1.0
CUL 142  Fundamentals of Food  5.0
CUL 273  Career Development  1.0

Total Credits  75

No diplomas offered.

- Baking & Pastry Arts Certificate with a Specialization in Cake Artistry (C55130-C1)
- Baking & Pastry Arts Certificate with a Specialization in Dessert Artistry (C55130-C2)
- Baking & Pastry Arts Certificate with a Specialization in Chocolate and Sugar Artistry (C55130-C3)

Baking & Pastry Arts Certificates (C55130)

Certificates earned in the Baking & Pastry Arts Program (A55130) are awarded by the College upon successful completion of the program and can be applied toward the Baking & Pastry Arts Degree Program.

Admissions
- Complete a CPCC Admissions Form.
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading, and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM and BPA prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see the Baking & Pastry Arts Program Chair, Geoff Blount, 704.330.4638.
- Complete a Baking and Pastry Arts Application.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.
- Students must have a CUL, HRM, or BPA program code.

Notes
- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.
- In the Baking and Pastry Arts program, there are more applications for admittance than space available. Criteria for admission include scores on standardized tests, interview, past academic performance and experience in the field of interest.

Contact Information
The Baking and Pastry Arts program is in the Hospitality Education Division. For more information, call 704.330.4638.
Baking & Pastry Arts Certificate with a Specialization in Cake Artistry (C55130-C1)

This certificate is designed to prepare students who would like to be employed as a baking professional, cake decorator, or those with some baking experience who want to further their knowledge in this specialized area. This certificate emphasizes on American and European cake construction and artistry.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CUL 160</td>
<td>Baking I</td>
<td>3.0</td>
</tr>
<tr>
<td>BPA 210</td>
<td>Cake Design and Decorating</td>
<td>3.0</td>
</tr>
<tr>
<td>BPA 130</td>
<td>European Cakes and Tortes</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Baking & Pastry Arts Certificate with a Specialization in Dessert Artistry (C55130-C2)

This certificate is designed to prepare students who would like to be employed as a pastry professional, a la carte pastry cook, or those with some baking experience who want to further their knowledge in this specialized area. This certificate emphasizes on techniques used in a la carte dessert production.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CUL 160</td>
<td>Baking I</td>
<td>3.0</td>
</tr>
<tr>
<td>BPA 165</td>
<td>Hot and Cold Desserts</td>
<td>3.0</td>
</tr>
<tr>
<td>BPA 240</td>
<td>Plated Desserts</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Baking & Pastry Arts Certificate with a Specialization in Chocolate and Sugar Artistry (C55130-C3)

This certificate is designed to prepare students who would like to be employed as a Candy Professional, Chocolatier, Confectioner, or those with some baking experience who want to further their knowledge in this specialized area. This certificate emphasizes on techniques used in Confectionary and Chocolate production.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CUL 160</td>
<td>Baking I</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td>BPA 220</td>
<td>Confection Artistry</td>
<td>4.0</td>
</tr>
<tr>
<td>BPA 230</td>
<td>Chocolate Artistry</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Basic Law Enforcement Training

The Basic Law Enforcement Training program is a curriculum course offered at most community colleges, commonly referred to as a Police Academy. Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise.

This program utilizes State-commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic and alcoholic beverage laws; physical training; investigative, patrol, custody and court procedures; emergency responses; and ethics and community relations.

This course is 626 mandated hours and meets for approximately 16 weeks, five days per week (M–F) from 7 a.m. until 6 p.m. Students must successfully complete and pass all units of study, including the certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriffs’ Education and Training Standards Commission to receive a certificate.

Students successfully completing a Basic Law Enforcement Training course accredited by the North Carolina Criminal Justice Education and Training Standards Commission and adopted by the North Carolina Sheriff’s Education and Training Standards Commission will be eligible to receive up to 21 credit hours {CJC 120, CJC 121, CJC 131, CJC 132 and CJC 221, CJC 231 and CJC 232} toward the Associate in Applied Science degree in Criminal Justice Technology. In order to successfully complete BLET, the student must successfully complete the Criminal Justice Education and Training Standards Commission’s comprehensive certification examination. Employment with criminal justice agencies is subject to specific agency criteria, therefore, completion of a degree alone is no guarantee of eligibility of employment.

Note

Central Piedmont Community College has increased the hours in some topical areas of Basic Law Enforcement Training courses above the minimum required by the North Carolina Criminal Justice Training and Standards Commission.

Location

This program is located on the Merancas Campus (formerly North Campus) of CPCC in Huntersville, N.C., at the Claudia Watkins Belk Center for Justice.

Admissions Requirements

1. Must be a citizen of the United States
2. Must be 20 years of age
3. Must possess a valid N.C. Driver’s License
4. Must provide Social Security Card for duplication
5. Must provide proof of high school graduation or GED completion
6. Must provide copy of birth certificate
7. Must be of good moral character
8. Must provide a certified copy of criminal records check (NCIC) for each City/State(s) of residence since the age of 16 years old
9. Must provide a certified copy of Driver’s history for all states where a license was obtained since the age of 16 years old
10. Must provide a certified copy of DD-214, if applicant has military service
11. Must not have committed, been charged with, or convicted of a felony, class B misdemeanor, or more than a total of 3 misdemeanor charges of any kind (this includes civilian or military).

Before you enroll, each candidate must call to set up a preliminary interview with the Director of the BLET program.

The purpose of this interview is to determine the eligibility of the candidate to participate in the program. Candidates must have a clean criminal record. No charges, convictions, or proof of a commission of any criminal offenses except minor traffic offenses. Only after the BLET Director determines the eligibility of a candidate will an enrollment packet be issued.

For further information
This program is part of the Public Safety Division. To learn more about the program, or to schedule a preliminary interview please contact:

Sgt. Stanley T. Moore, Director
Basic Law Enforcement Training
704.330.4189 or email at stanley.moore@cpcc.edu
Available weekdays from 8 a.m.- 4:30 p.m. Office hours by appointment only.

LaTrece Quigley, BLET Qualified Assistant
Basic Law Enforcement Training
704.330.4110 or email at latrease.quigley@cpcc.edu

No degrees offered.

No diplomas offered.

Basic Law Enforcement Training (C55120)
Major Requirements
CJC 100 Basic Law Enforcement Training 19.0
Total Credits 19

Business Administration
The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes and an understanding of business organizations in today’s global economy. Course work includes business concepts such as accounting, business law, economics, management and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building and decision-making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions and large to small business or industry.

- Business Administration (A25120)
- Business Administration - Human Resources Management Concentration (A2512C)
- Business Administration - International Business Concentration (A2512D)
- Business Administration - Marketing and Retailing Concentration (A2512F)

Business Administration (A25120)
Degree Awarded
The Associate in Applied Science Degree – Business Administration is awarded by the College upon completion of this program.

Admissions
- Complete required CPCC application.
- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts to the Admissions/Record Center.
- Request college transcripts to be evaluated for transfer credit.
- Accounting, business and economic college level courses taken more than 10 years ago will not be accepted.
- CPCC placement tests are required in reading comprehension and algebra. Developmental courses in English and mathematics are available for students to build basic skills and knowledge. All needed developmental courses must be completed prior to beginning ACC, BUS, ECM, INT, LOG and MKT prefix courses.
- A counseling/orientation appointment follows placement testing.
- See Program Chair for advising of course sequence and registration advisement. Call 704-330-6595 for an appointment.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.

Method of Study
Business Administration Degree courses are offered either fully online or web-enhanced. Testing may be available at one of the campuses of CPCC or online. Check with the instructor or the Business and Accounting Division Office at 704.330.6595 for details.

Transferring to Senior Institution
Students intending to transfer to a senior institution should check with the senior institution for that college’s general education, program requirements and GPA in order to transfer courses more effectively. Information on transfer institutions is available through the Business and Accounting Division Office. Students enrolled in the Business Administration program who think they may decide at a later time to transfer to a senior institution should take MAT 161 or MAT 140.

For More Information
The Business Administration program is in the Business and Accounting Division. For information, call the Business and Accounting Division office at 704.330.6595.
General Education Requirements

ENG 111 Expository Writing 3.0
ECO 252 Principles of Macroeconomics 3.0
Select 3 credits of the following: 3.0
   ENG 112 Argument-Based Research
   ENG 113 Literature-Based Research
   ENG 114 Professional Research & Reporting
COM 110 Introduction to Communication 3.0
or COM 231 Public Speaking
Select 3 credits of the following: 3.0
   MAT 155 Statistical Analysis
   MAT 161 College Algebra
   MAT 140 Survey of Mathematics
Select 3 credits of the following: 3.0
   ART 111 Art Appreciation
   ART 114 Art History Survey I
   ART 115 Art History Survey II
   ART 116 Survey of American Art
   ART 117 Non-Western Art History
   DAN 110 Dance Appreciation
   DAN 211 Dance History I
   DAN 212 Dance History II
   DRA 111 Theatre Appreciation
   DRA 112 Literature of the Theatre
   DRA 122 Oral Interpretation
   ENG 231 American Literature I
   ENG 232 American Literature II
   ENG 241 British Literature I
   ENG 242 British Literature II
   ENG 251 Western World Literature I
   ENG 252 Western World Literature II
   HUM 130 Myth in Human Culture
   HUM 160 Introduction to Film
   HUM 211 Humanities I
   HUM 212 Humanities II
   MUS 110 Music Appreciation
   MUS 112 Introduction to Jazz
   MUS 210 History of Rock Music
   MUS 213 Opera and Musical Theatre
   PHI 220 Western Philosophy I
   PHI 221 Western Philosophy II
   PHI 230 Introduction to Logic
   REL 110 World Religions
   REL 111 Eastern Religions
   REL 211 Introduction to Old Testament
   REL 212 Introduction to New Testament
   REL 221 Religion in America

Major Requirements

ACC 120 Principles of Financial Accounting 4.0
BUS 115 Business Law I 3.0
BUS 137 Principles of Management 3.0
MKT 120 Principles of Marketing 3.0
ECO 251 Principles of Microeconomics 3.0
CIS 110 Introduction to Computers 3.0
BUS 110 Introduction to Business 3.0
ACC 121 Principles of Managerial Accounting 4.0
BUS 153 Human Resources Management 3.0
BUS 255 Organizational Behavior in Business 3.0
INT 110 International Business 3.0
BUS 139 Entrepreneurship I 3.0
BUS 135 Principles of Supervision 3.0
BUS 230 Small Business Management 3.0
or ECM 210 Introduction to E-Commerce

Technical Electives

Select 6 credits of the following: 6.0
   COE 112 Co-Op Work Experience I
   MKT 224 International Marketing
   BUS 116 Business Law II
   BUS 217 Employment Law and Regulations
   BUS 234 Training and Development
   BUS 125 Personal Finance
   BUS 210 Investment Analysis
   ACC 150 Accounting Software Applications
   BUS 112 SIFE Business Development
   BUS 152 Human Relations
   SST 110 Introduction to Sustainability
   SST 210 Issues in Sustainability
   BAF 121 Economics for Bankers
   BUS 240 Business Ethics

Total Credits 68

Back to Top

Business Administration - Human Resources Management Concentration (A2512C)

Human Resources Management is a concentration under the curriculum title of Business Administration. This curriculum is designed to meet the demands of business and service agencies. The objective is the development of generalists and specialists in the administration, training and management of human resources.

Course work includes studies in management, interviewing, placement, needs assessment, planning, legal issues, compensation and benefits and training techniques. Also included are topics such as people skills, learning approaches, skill building and development of instructional and training materials.

Graduates from this program will have a sound business educational base for life-long learning. Students will be prepared for employment opportunities in personnel, training and other human resource development areas.
Degree Awarded

The Associate in Applied Science Degree – Business Administration – Human Resources Management is awarded by the College upon completion of this program.

An eighteen (18) hour Human Resources Generalist Certificate is also available.

Admissions

• Complete required CPCC application.
• A high school diploma or equivalent is required.
• Submit high school transcripts and any college transcripts to the Admissions/Record Center.
• Request college transcripts to be evaluated for transfer credit.
• Accounting, business and economic college level courses taken more than 10 years ago will not be accepted.
• CPCC placement tests are required in reading comprehension and algebra. Developmental courses in English and mathematics are available for students to build basic skills and knowledge. All needed developmental courses must be completed prior to beginning ACC, BUS, ECM, INT, LOG and MKT prefix courses.
• A counseling/orientation appointment follows placement testing.
• See Program Chair for advising of course sequence and registration advisement. Call 704-330-6595 for an appointment.
• Many courses have prerequisites or co-requisites. Check the Courses section for details.

Transferring to Senior Institution

Students intending to transfer to a senior institution should check with the senior institution for that college’s general education, program requirements and GPA in order to transfer courses more effectively.

Students enrolled in the Human Resources Management program who think they may decide at a later time to transfer to a senior institution should take MAT 161 or MAT 140.

Contact Information

The Business Administration - Human Resources Management program is in the Business and Accounting Division. For information, call 704.330.6595 to reach the division office.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
</tbody>
</table>
College-Level Programs

REL 221 Religion in America

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 137</td>
<td>Principles of Management</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 120</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 256</td>
<td>Recruiting, Selection &amp; Personnel Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 217</td>
<td>Employment Law and Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 234</td>
<td>Training and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 258</td>
<td>Compensation and Benefits</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 259</td>
<td>HRM Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 121</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 153</td>
<td>Human Resources Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 255</td>
<td>Organizational Behavior in Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Technical Electives**

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>INT 110</td>
<td>International Business</td>
<td></td>
</tr>
<tr>
<td>BUS 135</td>
<td>Principles of Supervision</td>
<td></td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Law II</td>
<td></td>
</tr>
<tr>
<td>BUS 152</td>
<td>Human Relations</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 68

Back to Top

**Business Administration - International Business Concentration (A2512D)**

International Business is a concentration under the curriculum title of Business Administration. This curriculum prepares individuals for positions in international business through studies in accounting, business, foreign language and specialized courses in international marketing, law, economics and trade practices.

Students will be expected to demonstrate language skills; knowledge of geographic, political and cultural differences; the ability to process import/export documentation; and knowledge of international economics and business practices.

Employment opportunities are available in import/export departments, freight-forwarder companies, customs house brokerage firms, international banking, state and federal government organizations, world organizations and other internationally active businesses.

**Degree Awarded**

The Associate in Applied Science Degree - Business Administration - International Business is awarded by the College upon completion of this program. A Certificate in International Business is also available upon completion of 18 credit hours of specified required courses.

**Admissions**

- Complete required CPCC application.
- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts to the Admissions/Record Center.
- Request college transcripts to be evaluated for transfer credit.
- Accounting, business and economic college level courses taken more than 10 years ago will not be accepted.
- CPCC placement tests are required in reading comprehension and algebra. Developmental courses in English and mathematics are available for students to build basic skills and knowledge. All needed developmental courses must be completed prior to beginning ACC, BUS, ECO, INT, LOG and MKT prefix courses.
- A Counseling/orientation appointment follows placement testing.
- See Program Chair for advising of course sequence and registration advisement. Call 704-330-6595 for an appointment.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.

**Transferring to Senior Institution**

Students intending to transfer to a senior institution should check with the senior institution for that college’s general education, program requirements and GPA in order to transfer courses more effectively.

Students enrolled in the International Business Program who think they may decide at a later time to transfer to a senior institution should take MAT 161 College Algebra or MAT 140 – Survey of Mathematics.

**For More Information**

The Business Administration - International Business program is in the Business and Accounting Division. For information, call 704.330.6595.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>Select 4 credits of the following:</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>FRE 111 &amp; FRE 181</td>
<td>Elementary French I &amp; French Lab 1</td>
<td></td>
</tr>
<tr>
<td>GER 111 &amp; GER 181</td>
<td>Elementary German I &amp; German Lab 1</td>
<td></td>
</tr>
<tr>
<td>SPA 111 &amp; SPA 181</td>
<td>Elementary Spanish I &amp; Spanish Lab 1</td>
<td></td>
</tr>
<tr>
<td>Technical Electives</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>ACC 121</td>
<td>Principles of Managerial Accounting</td>
<td></td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>INT 180</td>
<td>Travel Study Abroad</td>
<td></td>
</tr>
<tr>
<td>BUS 230</td>
<td>Small Business Management</td>
<td></td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>OMT 110</td>
<td>Intro to Operations Mgmt</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>67</td>
<td></td>
</tr>
</tbody>
</table>

### Business Administration - Marketing and Retailing Concentration (A2512F)

Marketing and Retailing is a concentration under the curriculum title of Business Administration. The curriculum is designed to provide students with fundamental skills in marketing and retailing.

Course work includes marketing, retailing, merchandising, selling, advertising, computer technology and management.

Graduates should qualify for marketing positions within marketing, retailing and service organizations.

### Degree Awarded

The Associate in Applied Science Degree – Business Administration – Marketing and Retailing is awarded by the College upon completion of this program.

A certificate in Event Marketing and Promotion is also available upon completion of 17 hours of required courses.

### Admissions

- Complete required CPCC application.
- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts to the Admissions/Record Center.
- Request college transcripts to be evaluated for transfer credit.
• Accounting, business and economic college level courses taken more than 10 years ago will not be accepted.
• CPCC placement tests are required in reading comprehension and algebra. Developmental courses in English and mathematics are available for students to build basic skills and knowledge. All needed developmental courses must be completed prior to beginning ACC, BUS, ECM, INT, LOG and MKT prefix courses.
• A counseling/orientation appointment follows placement testing.
• See Program Chair for advising of course sequence and registration advisement. Call 704-330-6595 for an appointment.
• Many courses have prerequisites or co-requisites. Check the Courses section for details.

Transferring to Senior Institution
Students intending to transfer to a senior institution should check with the senior institution for that college’s general education, program requirements and GPA in order to transfer courses more effectively.

Students enrolled in the Marketing and Retailing Program who think they may decide at a later time to transfer to a senior institution should take MAT 161 or MAT 140.

Contact Information
The Business Administration – Marketing and Retailing program is in the Business and Accounting Division. For information, call 704.330.6595 to reach the division office.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 137</td>
<td>Principles of Management</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 120</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 122</td>
<td>Visual Merchandising</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 123</td>
<td>Fundamentals of Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 220</td>
<td>Advertising and Sales Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 225</td>
<td>Marketing Research</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 227</td>
<td>Marketing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### Business Administration Certificate with a Specialization in Business Management (C25120-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of business management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration.

For more information, call the Business and Accounting office at 704.330.6595.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110 Introduction to Communication</td>
</tr>
<tr>
<td>or COM 231 Public Speaking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 137 Principles of Management</td>
</tr>
<tr>
<td>BUS 110 Introduction to Business</td>
</tr>
<tr>
<td>BUS 153 Human Resources Management</td>
</tr>
<tr>
<td>BUS 255 Organizational Behavior in Business</td>
</tr>
<tr>
<td>ECM 210 Introduction to E-Commerce</td>
</tr>
<tr>
<td>or BUS 230 Small Business Management</td>
</tr>
</tbody>
</table>

Total Credits: 18

### Business Administration Certificate with a Specialization in Workplace Business Skills (C25120-C3)

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110 Introduction to Communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110 Introduction to Computers</td>
</tr>
<tr>
<td>BUS 125 Personal Finance</td>
</tr>
<tr>
<td>BUS 135 Principles of Supervision</td>
</tr>
<tr>
<td>BUS 255 Organizational Behavior in Business</td>
</tr>
</tbody>
</table>

Total Credits: 15

### Business Administration Certificate Specialization in Entrepreneurship (C25120-C4)

This certificate is designed to provide the student with a concentrated course of study in the field of entrepreneurship and small business start-up and management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate in Applied Science Degree in Business Administration. For more information, call 704.330.6595 to reach the division office.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110 Introduction to Communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 137 Principles of Management</td>
</tr>
<tr>
<td>BUS 110 Introduction to Business</td>
</tr>
<tr>
<td>BUS 153 Human Resources Management</td>
</tr>
<tr>
<td>BUS 255 Organizational Behavior in Business</td>
</tr>
<tr>
<td>ECM 210 Introduction to E-Commerce</td>
</tr>
<tr>
<td>or BUS 230 Small Business Management</td>
</tr>
</tbody>
</table>

Total Credits: 15

### Business Management Certificates (C25120)

- Business Administration Certificate with a Specialization in Business Management (C25120-C1)
- Business Administration Certificate with a Specialization in Workplace Business Skills (C25120-C3)
- Business Administration Certificate Specialization in Entrepreneurship (C25120-C4)
- Business Administration Certificate Specialization in Business Operations (C25120-C5)
- Business Administration Certificate with a Specialization in Human Resources Generalist (C2512-C1)
- Business Administration Certificate with a Specialization in International Business (C2512D-C1)
- International Business Certificate with a Specialization in Logistics (C2512D-C2)
- Business Administration Certificate with a Specialization in Event Marketing and Promotion (C2512F-C3)
- Business Administration Certificate with a Specialization in Sales (C2512F-C4)
College-Level Programs

Major Requirements

MKT 120 Principles of Marketing 3.0
BUS 110 Introduction to Business 3.0
BUS 230 Small Business Management 3.0
BUS 139 Entrepreneurship I 3.0

Accounting Elective

ACC 150 Accounting Software Applications 2.0
or ACC 120 Principles of Financial Accounting

Business Elective

Select one of the following: 3.0

BUS 153 Human Resources Management
BUS 115 Business Law I
BUS 255 Organizational Behavior in Business
INT 110 International Business
BUS 135 Principles of Supervision

Total Credits 17

Back to Top

Business Administration Certificate
Specialization in Business Operations (C25120-C5)

This certificate is also available to students enrolled in Career & College Promise.

Major Requirements

BUS 115 Business Law I 3.0
BUS 137 Principles of Management 3.0
CIS 110 Introduction to Computers 3.0
MKT 120 Principles of Marketing 3.0
BUS 110 Introduction to Business 3.0

Total Credits 15

Back to Top

Human Resources Management Certificates (C2512C)

Business Administration Certificate with a Specialization in Human Resources Generalist (C2512C-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of human resources management. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Business Administration - Human Resources Management.

For more information, call 704.330.6595.

Major Requirements

BUS 115 Business Law I 3.0
BUS 137 Principles of Management 3.0
CIS 110 Introduction to Computers 3.0
MKT 120 Principles of Marketing 3.0
BUS 110 Introduction to Business 3.0

Total Credits 15

Back to Top

International Business Certificate with a Specialization in International Business (C2512D-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of International Business. Upon completion of the six courses, a certificate will be awarded by the College. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in International Business.

For more information, call the division office at 704.330.6595.

Major Requirements

BUS 137 Principles of Management 3.0
CIS 110 Introduction to Computers 3.0
INT 110 International Business 3.0
INT 210 International Trade 3.0
GEO 111 World Regional Geography 3.0
MKT 224 International Marketing 3.0

Total Credits 18

Back to Top

International Business Certificate with a Specialization in Logistics (C2512D-C2)

This certificate is designed to provide the student with a concentrated course of study in the field of Logistics. Upon completion of the five courses, a certificate will be awarded by the College. This certificate may be applied toward the Associate Degree in Business Administration with a concentration in International Business.

For more information, call the division office at 704.330.6595.

Major Requirements

INT 110 International Business 3.0
INT 210 International Trade 3.0
LOG 110 Introduction to Logistics 3.0
LOG 125 Transportation Logistics 3.0
OMT 110 Intro to Operations Mgmt 3.0

Total Credits 15

Back to Top

Marketing and Retailing Certificates (C2512F)
Business Administration Certificate with a Specialization in Event Marketing and Promotion (C2512F-C3)

This certificate is designed to provide the student with a concentrated course of study in the field of marketing. Upon completion of the six courses, a certificate will be awarded by the College. The courses for this certificate may be applied toward the Associate Degree in Applied Science in Business Administration Marketing and Retailing.

For more information, call 704.330.6595.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 120</td>
<td>Principles of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 123</td>
<td>Fundamentals of Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 220</td>
<td>Advertising and Sales Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>MKT 221</td>
<td>Consumer Behavior</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 229</td>
<td>Special Events Production</td>
<td>2.0</td>
</tr>
<tr>
<td>or ENT 211</td>
<td>Entertainment Promotion</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 14

Cardiovascular Technology (A45170)

Degree Awarded

The Associate in Applied Science Degree Cardiovascular Technology is awarded by the College upon completion of this program.

Admissions

- Complete a CPCC application.
- Obtain and complete the Cardiovascular Technology program application process.
- Submit high school transcripts and all college transcripts.
- Meet with a guidance counselor.
- Take required Accuplacer placement test.
- Schedule and take the TEAS test for Admission requirement.
- CHM 121/CHM 121A is required for CVT admissions. CHM 121/CHM 121A or higher must be completed with a grade of “C” or better prior to the application deadline.
- Applicants must present evidence of good physical and mental health. Refer to CVT Professional Standards at www.cpcc.edu/cvt.
- Applicants must select Specialty Track at the time of application submission: Invasive (Cardiac Catheterization Technologist) Track or Noninvasive (Adult Echocardiography/Cardiac Ultrasound) Track
- Progression in the CVT program requires a grade “C” or better in all courses (general education and core).
- Many courses have prerequisites or co-requisites; check the Courses section for details.
- Students must demonstrate basic computer competencies through coursework (CIS 110) or testing. The division director of Computer Office and Information Systems will determine equivalency and competency level. CIS 110 is required if coursework is needed to demonstrate computer competencies.

Program Accreditation

The Cardiovascular Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT) at the associate degree level in the Non-Invasive Cardiology (Adult Echocardiography) concentration and the Invasive Cardiology (Invasive Cardiovascular Technology) concentration.

CAAHEP
1361 Park Street
Clearwater, FL 33756
727.210.2350

Notes

In addition to tuition and textbooks, costs of this program include the following: scrubs, lab coat, radiation monitoring badge, CVT patch; student picture ID; a physical examination including drug screening test; immunizations such as tetanus toxoid, hepatitis B vaccinations; TB test; blood test (VDRL, rubella titer, etc.); current CPR certification and criminal background check. All students must provide a certificate of health and...
accident insurance. In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States. All students enrolled in the Cardiovascular Technology program will take the same Core courses for the first year. Upon admission, applicants select either the Invasive or Noninvasive specialty track. Students will enroll in Core courses of their specialty track in the fall term of the second year.

Contact Information
The Cardiovascular Technology program is in the Health and Human Services Division. For more information, call 704.330.6285 or 704.330.6496. The Cardiovascular Technology program Admission packet may be downloaded from the Cardiovascular Technology (CVT) program website at www.cpcc.edu/cvt. Latest updates and answers to frequently asked questions are available on the CVT website.

Invasive Track

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
</tbody>
</table>

Total Credits: 76

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 114</td>
<td>Intro Cardiovascular Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>ICT 134</td>
<td>Cv Anatomy &amp; Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>ICT 136</td>
<td>Cardiac Cath I</td>
<td>5.0</td>
</tr>
<tr>
<td>NCT 113</td>
<td>Electrocardiography</td>
<td>4.0</td>
</tr>
<tr>
<td>NCT 133</td>
<td>Cardiovascular Ultrasound Principles</td>
<td>3.0</td>
</tr>
<tr>
<td>NCT 143</td>
<td>Echocardiography I</td>
<td>5.0</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Conceptual Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 110A</td>
<td>Conceptual Physics Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>MED 120</td>
<td>Survey of Medical Terminology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Invasive Track Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT 214</td>
<td>Cardiac Cath II</td>
<td>8.0</td>
</tr>
<tr>
<td>ICT 234</td>
<td>Cardiac Cath III</td>
<td>12.0</td>
</tr>
<tr>
<td>ICT 244</td>
<td>Peripheral Vascular Catherization</td>
<td>2.0</td>
</tr>
<tr>
<td>ICT 254</td>
<td>Introduction to Cardiac Electrophysiology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Non-Invasive Track

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
</tbody>
</table>

Total Credits: 76
Civil Engineering Technology

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the design and construction of transportation systems, residential and commercial buildings, bridges, dams and water and wastewater treatment systems.

Coursework includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology and surveying. Additional coursework will cover the operation of computers and application software including computer-aided drafting.

Graduates should qualify for technician level jobs with both public and private engineering, construction and surveying agencies.
HUM 211   Humanities I
HUM 212   Humanities II
MUS 110   Music Appreciation
MUS 112   Introduction to Jazz
MUS 210   History of Rock Music
MUS 213   Opera and Musical Theatre
PHI 220   Western Philosophy I
PHI 221   Western Philosophy II
PHI 230   Introduction to Logic
PHI 240   Introduction to Ethics
REL 110   World Religions
REL 111   Eastern Religions
REL 112   Western Religions
REL 211   Introduction to Old Testament
REL 212   Introduction to New Testament
REL 221   Religion in America
Select 3 credits of the following: 3.0
ANT 210   General Anthropology
ANT 220   Cultural Anthropology
ANT 221   Comparative Cultures
ECO 151   Survey of Economics
ECO 251   Principles of Microeconomics
ECO 252   Principles of Macroeconomics
GEO 111   World Regional Geography
HIS 111   World Civilizations I
HIS 112   World Civilizations II
HIS 131   American History I
HIS 132   American History II
POL 110   Introduction to Political Science
POL 120   American Government
POL 210   Comparative Government
POL 220   International Relations
PSY 150   General Psychology
PSY 237   Social Psychology
PSY 241   Developmental Psychology
PSY 281   Abnormal Psychology
SOC 210   Introduction to Sociology
SOC 213   Sociology of the Family
SOC 220   Social Problems
SOC 225   Social Diversity

Major Requirements
CEG 115   Intro to Tech & Sustainability 3.0
SRV 110   Surveying I 4.0
CEG 211   Hydrology & Erosion Control 3.0
CEG 151   Cad for Engineering Technology 3.0
EGR 250   Statics/Strength of Mater 5.0
CEG 212   Introduction to Environmental Technology 3.0
CIV 111   Soils and Foundations 4.0
CEG 210   Construction Materials & Methods 3.0
CEG 235   Project Management and Estimating 3.0
SRV 111   Surveying II 4.0
CEG 111   Introduction to Gis and Gns 4.0
or GIS 111   Introduction to GIS
& GIS 112   and Introduction to GPS
EGR 125   Appl Software for Tech 2.0

Pathways
Complete one of three Pathway (see below) 12.0

Total Credits 71

Pathways

Structures Pathway:
CIV 220   Basic Structural Concepts 2.0
CIV 221   Steel and Timber Design 3.0
CIV 222   Reinforced Concrete 3.0
CIV 125   Civil/ Surveying CAD 3.0
CIV 250   Civil Engineering Technology Project 2.0

Total Credits 13

Environmental Engineering Pathway:
ENV 110   Environmental Science 3.0
ENV 226   Environmental Law 3.0
ENV 232   Site Assessment and Remediation 3.0
CEG 230   Subdivision Planning & Design 3.0

Total Credits 12

Transfer Pathway:
MAT 172   Precalculus Trigonometry 3.0
MAT 271   Calculus I 4.0
PHY 131   Physics-Mechanics 4.0
PHY 132   Physics-Electricity & Magnetism 4.0

Total Credits 15

No diplomas offered.

- Civil Engineering Technology Certificate with a Specialization in Construction Materials Testing (C40140-C1)
- Civil Engineering Technology Certificate with a Specialization in Project Supervision (C40140-C2)
- Civil Engineering Technology Certificate Specialization in Civil Engineering Technology Pathway (C40140-C3)

Civil Engineering Technology Certificates (C40140)

Civil Engineering Technology Certificate with a Specialization in Construction Materials Testing (C40140-C1)
This certificate prepares individuals to enter Materials Testing Careers in the Construction Industry. Course study is intended to provide students with the theoretical background and practical experience to understand materials testing; test materials, primarily soils and concrete; and prepare
technical reports. The courses for this certificate may be applied toward the Associate in Applied Science Degree – Civil Engineering Technology.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 250</td>
<td>Statics/Strength of Mater</td>
<td>5.0</td>
</tr>
<tr>
<td>CIV 111</td>
<td>Soils and Foundations</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 210</td>
<td>Construction Materials &amp; Methods</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: 17

**Civil Engineering Technology Certificate with a Specialization in Project Supervision (C40140-C2)**

This certificate prepares individuals to enter Careers in Project Management and Estimating in the Construction Industry. Course study is intended to provide students with the theoretical background and computer skills needed to contribute to Construction Management and Estimating teams. The courses for this certificate may be applied toward the Associate in Applied Science Degree – Civil Engineering Technology.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 115</td>
<td>Intro to Tech &amp; Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>CEG 235</td>
<td>Project Management and Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits: 15

**Civil Engineering Technology Certificate Specialization in Civil Engineering Technology Pathway (C40140-C3)**

This certificate is intended for high school juniors and seniors enrolled in a Career Technical Education Pathway. Course study is intended to provide students with the theoretical background and practical experience to understand the major areas of Civil Engineering Technology – Structures, Materials and Hydraulics. The courses for this certificate may be applied toward the Associate in Applied Science Degree – Civil Engineering Technology.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 115</td>
<td>Intro to Tech &amp; Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>CEG 211</td>
<td>Hydrology &amp; Erosion Control</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 250</td>
<td>Statics/Strength of Mater</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Total Credits: 18

**Collision Repair and Refinishing Technology**

The Collision Repair and Refinishing Technology curriculum provides training in the use of equipment and materials of the collision repair and refinishing trade. The student studies the construction of the automobile body and techniques of repairing, rebuilding and refinishing.

The course work includes collision repair fundamentals, industry overview and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, MIG welding, plastics and adhesives, refinishing and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the collision repair and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

No degrees offered.

**Collision Repair and Refinishing Technology (D60130)**

**Diploma Awarded**

A Diploma in Collision Repair and Refinishing Technology is awarded by the College upon completion of this program.

**Admissions**

- Completion of a high school diploma or equivalent is required as the foundation of a career in this area.
- Many courses have prerequisites or corequisites; check the Courses section for details.

Note: Students must furnish required hand tools, textbooks, respirator and protective clothing. A list of these items can be obtained from an instructor or the program chair. Call 704.330.4158 for a list.

**Contact Information**

The Collision Repair and Refinishing Technology program is in the Transport Systems Technologies Division. For more information, call 704.330.4158 or 704.330.4121.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 101</td>
<td>Applied Communications I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 101</td>
<td>Applied Mathematics I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 111</td>
<td>Painting &amp; Refinishing I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 112</td>
<td>Painting &amp; Refinishing II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 114</td>
<td>Special Finishes</td>
<td>2.0</td>
</tr>
<tr>
<td>AUB 121</td>
<td>Non-Structural Damage I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUB 122</td>
<td>Non-Structural Damage II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 131</td>
<td>Structural Damage I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 132</td>
<td>Structural Damage II</td>
<td>4.0</td>
</tr>
</tbody>
</table>
Collision Repair and Refinishing Technology Certificate with a Specialization in Painting and Refinishing (C60130-C1)

This certificate is also available to students enrolled in Career and College Promise.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 111</td>
<td>Painting &amp; Refinishing I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 112</td>
<td>Painting &amp; Refinishing II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 114</td>
<td>Special Finishes</td>
<td>2.0</td>
</tr>
<tr>
<td>AUB 136</td>
<td>Plastics &amp; Adhesives</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

Back to Top

Collision Repair and Refinishing Technology Certificate with a Specialization in Collision Repair (C60130-C2)

The A.A.S. degree in Computer Engineering Technology is accepted at some colleges and universities as the first two years of a 2+2 bachelor’s-level engineering technology program. These students are advised to complete a second Physics class (PHY132 or PHY152) to ensure they are not considered deficient with credit hours in Physics.

Graduates should qualify for employment opportunities in computer and electronics technology, computer service, computer networks, server maintenance, programming and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 121</td>
<td>Non-Structural Damage I</td>
<td>3.0</td>
</tr>
<tr>
<td>AUB 131</td>
<td>Structural Damage I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 132</td>
<td>Structural Damage II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 162</td>
<td>Autobody Estimating</td>
<td>2.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Back to Top

Collision Repair and Refinishing Technology Certificate with a Specialization in Autobody Estimating (C60130-C3)

Graduates should qualify for employment opportunities in computer and electronics technology, computer service, computer networks, server maintenance, programming and other areas requiring knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 131</td>
<td>Structural Damage I</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 132</td>
<td>Structural Damage II</td>
<td>4.0</td>
</tr>
<tr>
<td>AUB 162</td>
<td>Autobody Estimating</td>
<td>2.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Back to Top
Computer Engineering Technology (A40160)

Degree Awarded

The Associate in Applied Science Degree - Computer Engineering Technology is awarded by the College upon completion of the program track.

Note: Students in the Computer Engineering Technology (A40160) program desiring to earn an additional degree in Electrical Engineering Technology (A40180), or Electronics Engineering Technology (A40200), or an additional track under Computer Engineering Technology (A40160) must meet the specified course requirements.

Admissions

• A high school diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.

• CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge. A counseling/orientation appointment follows placement testing.

• Many courses require prerequisites or co-requisites; check the Courses section for details.

Program Accreditation

The Computer Engineering Technology program at CPCC is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (TAC of ABET), http://www.abet.org.

Notes

The Computer Engineering Technology program prepares students with skills and knowledge in both hardware and software aspects of computers and related systems. It provides a comprehensive background in the practical application of both computer and electronic circuits from the component to the system level. Courses are designed to present technical content in an order that provides students with progressive levels of job related skills and knowledge. From fundamental programming and electrical circuits, students advance to specialized courses in computer circuits, microprocessors, microcomputer system design, software development, computer maintenance and installation and technical support of local area networks.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses. Completion of the program requires that students use college-level algebra, trigonometry and physics in the application of scientific principles to technological problems. Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect at the time of re-entry.

Computer Hardware Track

This track focuses on the knowledge and skills associated with the installation, maintenance and troubleshooting of computer hardware and embedded systems. Course work includes microprocessor, microcomputer applications, networking, internet configuration and design, operating systems, C++ programming, assembly language programming, I/O hardware interfacing, industrial applications and data acquisition using LabView.

Contact Information

The Computer Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpcc.edu/et or call the Program Chair at 704.330.6479.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Select 3 credits of the following: 3.0

ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 122 Literature of the Theatre
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 111 Eastern Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America
MUS 210 History of Rock Music

Technical Electives
Select 7 credits of the following: 7.0

WEB 140 Web Development Tools
PCI 170 DAQ and Control
PHY 132 Physics-Electricity & Magnetism
PHY 152 College Physics II
PHY 252 General Physics II
CET 125 Voice and Data Cabling
NET 113 Home Automation Systems
NET 125 Networking Basics
ELN 260 Prog Logic Controllers
CSC 139 Visual BASIC Programming
COE 112 Co-Op Work Experience I
COE 122 Co-Op Work Experience II
PCI 172 SCADA Systems
PCI 173 Programmable Systems
ELC 135 Electrical Machines
ELC 136 Electrical Machines II

Total Credits 72

Computer Engineering Technology Diplomas (D40160)

Computer Hardware (D40160-D1)
The Computer Hardware Diploma focuses on the knowledge and skills associated with the installation, maintenance and troubleshooting of computer hardware and embedded systems. Course work includes microprocessor, microcomputer applications, networking, internet configuration and design, operating systems, C++ programming, assembly language programming, I/O hardware interfacing, industrial applications and data acquisition using LabView. Credits from this diploma can be applied toward requirements for Associate of Applied Science Degree in Computer Engineering Technology.

Admissions
• A high school diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
• CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge. A counseling/orientation appointment follows placement testing.
• Many courses require prerequisites or co-requisites; check the Courses section for details.

Contact Information
The Computer Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpcc.edu/et or call the Program Chair at 704.330.6479.
Diploma Awarded
A diploma in Computer Hardware is awarded by the College upon completion of this program.

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
MAT 121 Algebra/Trigonometry I
MAT 171 Precalculus Algebra
MAT 175 Precalculus
MAT 271 Calculus I
Select 3 credits of the following: 3.0
MAT 122 Algebra/Trigonometry II
MAT 172 Precalculus Trigonometry
MAT 272 Calculus II

Major Requirements
CET 111 Computer Upgrade/Repair I 3.0
ELN 133 Digital Electronics 4.0
ELC 138 DC Circuit Analysis 3.0
ELC 139 AC Circuit Analysis 3.0
CSC 134 C++ Programming 3.0
ELN 232 Introduction to Microprocessors 4.0
CET 211 Computer Upgrade/Repair II 3.0
ELN 233 Microprocessor Systems 4.0
ELN 237 Local Area Networks 3.0
PCI 170 DAQ and Control 4.0
Total Credits 43

Computer Technology Integration

The Computer Technology Integration (CTI) curriculum is designed to prepare graduates for employment with organizations that use computers to design, process, manage and communicate information. This is a flexible curriculum that can be customized to meet community technology integration needs.

This program is designed so students may complete one of ten diplomas to satisfy technical requirements while completing this degree program; they may also complete one or more of the certificates. Students may complete a certificate or diploma without embarking upon the degree.

Students should begin with the Computer Technology Integration Foundations certificate (C25500-C3), which consists of five courses. Four of these courses cover the IT competencies defined by the Department of Education within the four IT Career Clusters; the fifth is to fulfill the state technology requirement.

The Computer Technology Integration degree (A25500) is designed to be completed in conjunction with one of the following diplomas. Additionally, students may complete one or more of the certificates.

After completing the core classes and required general education classes, the student will choose a specialty on which to focus. These specialties are specific to the needs of the local IT Industry and include diplomas comprised of:

1. D25500-D1 – CTI with an emphasis on Cyber Crime and Digital Forensics
2. D25500-D4 – CTI with an emphasis on JAVA Software Development
3. D25500-D5 – CTI with an emphasis on .NET Software Development
4. D25500-D6 – CTI with an emphasis on Cyber Crime & Information Systems Security
5. D25500-D8 – CTI with an emphasis on Geospatial technology
6. D25500-D9 – CTI with an emphasis on Network Administration
7. D25500-10 – CTI with an emphasis on Network Infrastructure
8. D25500-11 – CTI with an emphasis on Linux Networking
9. D25500-12 – CTI with an emphasis on Mobile Apps Development
10. D25500-13 – CTI with an emphasis on Web Technologies
11. D25500-14 - CTI with an emphasis in Database Analysis/Programming

Graduating students in this CTI degree will complete:

General Education 18.0
CTI Core Courses 15.0
Technical Courses 25.0-30.0
Technical Electives 4.0-9.0
Total hours 67.0

Course work will develop a student's ability to communicate and solve complex technical issues related to information support and services, interactive media, network systems, programming and software development and other converging technologies. Classes cover computer operations and terminology, operating systems, database, networking, communications, security, programming and technical support.

Graduates should qualify for employment in entry-level positions with businesses, educational systems and governmental agencies which rely on computer systems to design and manage information.

Graduates should be prepared to sit for various industry-recognized certification exams, depending on the specialty chosen.

Computer Technology Integration
(A25500)

Degree Awarded
The Associate in Applied Science Degree in Computer Technology Integration is awarded by the College upon completion of this program. Graduates must also earn a diploma within their area of specialization.

Admissions
Students may be admitted to this program of study if they have completed IC3 certification in Computer Fundamentals, Computer Applications and Internet Usage, or, have completed all developmental courses - ENG 085, MAT 070, RED 080 - if required. Enrollment in ENG 090, MAT 080 and RED 090 (all 3) or higher is also qualification for entry.

• A high school diploma or equivalent is required;
• Placement tests determine placement in English (ENG courses) and Mathematics (MAT courses);
• Many courses have prerequisites or co-requisites; check the Courses of the Catalog for these details.
Contact Information

The Computer Technology Integration program is in the Information Technology Division. For more information, check http://www.cpcc.edu/it/academic-degrees/computer-technology-integration or call 704.330.6549.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>PHI 240</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>CTS 115</td>
<td>Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 110</td>
<td>Web, Programming, and Database Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 120</td>
<td>Network and Security Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>6.0</td>
</tr>
<tr>
<td>CTS 130</td>
<td>Operating Systems and Device Foundation</td>
<td></td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td></td>
</tr>
<tr>
<td>&amp; CTS 120</td>
<td>and Hardware/Software Support</td>
<td></td>
</tr>
<tr>
<td>CET 111</td>
<td>Computer Upgrade/Repair I</td>
<td></td>
</tr>
<tr>
<td>&amp; CET 211</td>
<td>and Computer Upgrade/Repair II</td>
<td></td>
</tr>
</tbody>
</table>

Web Technologies Track:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 220</td>
<td>Advanced Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 215</td>
<td>Advanced Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 143</td>
<td>Object-Oriented Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 120</td>
<td>Introduction to Internet Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 140</td>
<td>Web Development Tools</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 210</td>
<td>Web Design</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 250</td>
<td>Database Driven Websites</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CTI 289</td>
<td>Computer Technology Integration Capstone Project</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
</tbody>
</table>

**Cyber Crime & Digital Forensics Track:** 40.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCT 250</td>
<td>Network Vulnerabilities I</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 125</td>
<td>Networking Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 110</td>
<td>Security Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 150</td>
<td>Secure Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 160</td>
<td>Security Administration I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 120</td>
<td>Linux/UNIX Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 110</td>
<td>Introduction to Cyber Crime</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 121</td>
<td>Computer Crime Investigation</td>
<td>4.0</td>
</tr>
<tr>
<td>CCT 240</td>
<td>Data Recovery Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 241</td>
<td>Advanced Data Recovery</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 110</td>
<td>Networking Concepts</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following courses: 3.0

- CJC 111 Introduction to Criminal Justice
- CJC 132 Court Procedure & Evidence
- CJC 221 Investigative Principles

**Java Software Development Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 143</td>
<td>Object-Oriented Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 151</td>
<td>JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 251</td>
<td>Advanced JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 120</td>
<td>Database Programming I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 179</td>
<td>JAVA Web Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 215</td>
<td>Advanced Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 289</td>
<td>Computer Technology Integration Capstone Project</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
</tbody>
</table>

**.Net Software Development Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 153</td>
<td>C# Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 143</td>
<td>Object-Oriented Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 120</td>
<td>Database Programming I</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 253</td>
<td>Advanced C# Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 180</td>
<td>Active Server Pages</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 215</td>
<td>Advanced Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 289</td>
<td>Computer Technology Integration Capstone Project</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
</tbody>
</table>

**Cyber Crime & Information Systems Security Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC 110</td>
<td>Security Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 150</td>
<td>Secure Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 160</td>
<td>Security Administration I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Network Administration Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 230</td>
<td>Windows Administration I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 231</td>
<td>Windows Administration II</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 289</td>
<td>Networking Project</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 120</td>
<td>Linux/UNIX Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 130</td>
<td>Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 110</td>
<td>Security Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 125</td>
<td>Networking Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 111</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 232</td>
<td>Windows Administration III</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 220</td>
<td>Linux/UNIX Administration I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 221</td>
<td>Linux/UNIX Administration II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following courses: 3.0

- NOS 220 Linux/UNIX Administration I
- CCT 110 Introduction to Cyber Crime

**Network Infrastructure Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS 130</td>
<td>Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 230</td>
<td>Windows Administration I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 231</td>
<td>Windows Administration II</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 125</td>
<td>Networking Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 126</td>
<td>Routing Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 225</td>
<td>Routing &amp; Switching I</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 226</td>
<td>Routing and Switching II</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 289</td>
<td>Networking Project</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 120</td>
<td>Linux/UNIX Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 110</td>
<td>Security Concepts</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following courses: 3.0

- NOS 220 Linux/UNIX Administration I
- CCT 110 Introduction to Cyber Crime

**Database Analysis/Programming Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 120</td>
<td>Database Programming I</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 130</td>
<td>Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 250</td>
<td>Database Driven Websites</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 210</td>
<td>Database Administration</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 220</td>
<td>Oracle Database Programming II</td>
<td>3.0</td>
</tr>
<tr>
<td>or DBA 221</td>
<td>SQL Server Database Programming II</td>
<td></td>
</tr>
<tr>
<td>DBA 285</td>
<td>Data Warehousing and Mining</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 289</td>
<td>Computer Technology Integration Capstone Project</td>
<td>3.0</td>
</tr>
</tbody>
</table>
College-Level Programs

CIS 110  Introduction to Computers  2.0
or CIS 111  Basic PC Literacy

- Diploma in Computer Technology Integration with an emphasis in Cyber Crime and Digital Forensics (D25500-D1)
- Diploma in Computer Technology Integration with an emphasis in JAVA Software Development (D25500-D4)
- Diploma in Computer Technology Integration with an emphasis in .NET Software Development (D25500-D5)
- Diploma in Computer Technology Integration with an emphasis in Cyber Crime & Information Systems Security (D25500-D6)
- Diploma in Computer Technology Integration with an emphasis in Network Administration (D25500-D9)
- Diploma in Computer Technology Integration with an emphasis in Network Infrastructure (D25500-10)
- Diploma in Computer Technology Integration with an emphasis in Web Technologies (D25500-13)
- Diploma in Computer Technology Integration with an emphasis in Database Analysis/Programming (D25500-14)

Computer Technology Integration
Diplomas (D25500)

Diploma in Computer Technology Integration with an emphasis in Cyber Crime and Digital Forensics (D25500-D1)

Digital forensics is the study of computers and other types of digital media (cell phones, flash memory, etc.) to determine forensically the activities that occurred during the use of the device. Many people are not aware that computers and other digital media are excellent record-keepers of conversations, files and transactions. Computer forensic analysts work for a variety of organizations in pursuit of that digital evidence.

Business and industry uses digital forensics to gather internal information regarding property theft, fraud, network intrusions and the unauthorized use of computers and other devices. The information that is compiled from these investigations can be used to assist in employee termination and civil and criminal litigation.

Law enforcement agencies use digital forensics to gather digital evidence for a variety of crimes, including money laundering, forgery, identity theft and extortion, among others. Digital-based crime is on the rise in the United States. According to industry experts, reported incidents of financial fraud and identity theft are expected to increase significantly, creating a demand for professionals skilled in computer technology on the national level.

Employment of digital forensics investigators is expected to grow faster than the average for all occupations in the 2006-16 decade. CPCC’s Digital Forensics program seeks to prepare students for careers in computer- and network-based investigation and basic data recovery techniques.

The program is designed to instruct a student in the digital investigative process and how to identify and collect evidence involving computer networks or devices. Upon completion of CPCC’s digital forensics program, students should be equipped with the skills needed to pursue careers in the following professions:

- Computer Forensics Investigators
- Corporate Investigators
- Financial Investigator / Digital Forensics
- Legal Investigator / Digital Forensics

This diploma is designed to be completed in conjunction with the Computer Technology Integration Degree (A25500).

Diploma Awarded

A diploma in Computer Technology Integration with an emphasis in Cyber Crime and Digital Forensics (D25500-D1) is awarded by the college upon completion of this program.

Admissions

- A high school diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Developmental Studies mathematics and English courses are available for students to build basic skills and knowledge.

Students are expected to have a working knowledge of Computer Hardware, the Windows Operating System environment and common applications. Students are expected to own a computer meeting the hardware specifications of the current program minimum requirements which can be obtained from the program chair.

Students must be able to pass a criminal background check before pursuing a career in Digital Forensics.

Students pursuing a career in Digital Forensics should be in good mental and physical health.

Students pursuing a career in Digital Forensics should be able to perform well in a high stress environment.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
</tbody>
</table>
Computer Technology Integration
Software Development Diplomas

Overview
The software development diplomas introduce students to programming language concepts, while exploring software development alternatives. Students will use technological platforms that take advantage of the latest technologies such as the Internet, mobile applications, etc.

Admissions
- A high school diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Developmental Studies Mathematics and English courses are available for students to build basic skills and knowledge.

Students pursuing a career in Software Development should be in good mental and physical health.

Students pursuing a career in Software Development should be able to perform well in a high stress environment.

Diploma in Computer Technology Integration with an emphasis in JAVA Software Development (D25500-D4)
The diploma is designed to provide students with the foundation of software development using Java technologies. Students will also be introduced to the development of data driven applications.
This diploma is designed to be completed in conjunction with the Computer Technology Integration Degree (A25500).

General Education Requirements
ENG 111 Expository Writing 3.0
COM 110 Introduction to Communication 3.0

Major Requirements
CTS 115 Information Systems Business Concepts 3.0
CTI 110 Web, Programming, and Database Foundation 3.0
CTI 120 Network and Security Foundation 3.0
CSC 143 Object-Oriented Programming 3.0
WEB 115 Web Markup and Scripting 3.0
CSC 151 JAVA Programming 3.0
CTS 240 Project Management 3.0
CSC 251 Advanced JAVA Programming 3.0
WEB 179 JAVA Web Programming 3.0
NOS 110 Operating Systems Concepts 3.0
WEB 110 Internet/Web Fundamentals 3.0
DBA 120 Database Programming I 3.0
WEB 215 Advanced Markup and Scripting 3.0
CIS 110 Introduction to Computers 2.0
or CIS 111 Basic PC Literacy

Total Credits 47

Diploma Awarded
A diploma in Cyber Crime and Information Systems Security Diploma (D25500-D6) is awarded by the College upon completion of this program.

Admissions
- A high school diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics.
Developmental Studies Mathematics and English courses are available for students to build basic skills and knowledge.

Students are expected to have a working knowledge of Computer Hardware, the Windows Operating System environment and common applications.

Students are expected to own a computer meeting the hardware specifications of the current program minimum requirements which can be obtained from the program chair.

Students must be able to pass a criminal background check before pursuing a career in Digital Forensics.

Students pursuing a career in Digital Forensics should be in good mental and physical health.

Students pursuing a career in Digital Forensics should be able to perform well in a high stress environment.
General Education Requirements

ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
   ART 111 Art Appreciation
   ART 114 Art History Survey I
   ART 115 Art History Survey II
   ART 116 Survey of American Art
   ART 117 Non-Western Art History
   DAN 110 Dance Appreciation
   DAN 211 Dance History I
   DAN 212 Dance History II
   DRA 111 Theatre Appreciation
   DRA 112 Literature of the Theatre
   DRA 122 Oral Interpretation
   ENG 231 American Literature I
   ENG 232 American Literature II
   ENG 241 British Literature I
   ENG 242 British Literature II
   ENG 251 Western World Literature I
   ENG 252 Western World Literature II
   HUM 130 Myth in Human Culture
   HUM 160 Introduction to Film
   HUM 211 Humanities I
   HUM 212 Humanities II
   MUS 110 Music Appreciation
   MUS 112 Introduction to Jazz
   MUS 210 History of Rock Music
   MUS 213 Opera and Musical Theatre
   PHI 220 Western Philosophy I
   PHI 221 Western Philosophy II
   PHI 230 Introduction to Logic
   REL 110 World Religions
   REL 111 Eastern Religions
   REL 112 Western Religions
   REL 211 Introduction to Old Testament
   REL 212 Introduction to New Testament
   REL 221 Religion in America
   ANT 210 General Anthropology
   ANT 220 Cultural Anthropology
   ANT 221 Comparative Cultures
   ECO 151 Survey of Economics
   ECO 251 Principles of Microeconomics
   ECO 252 Principles of Macroeconomics
   GEO 111 World Regional Geography
   HIS 111 World Civilizations I
   HIS 112 World Civilizations II
   HIS 131 American History I
   HIS 132 American History II
   POL 120 American Government
   POL 210 Comparative Government
   POL 220 International Relations
   PSY 150 General Psychology
   PSY 241 Developmental Psychology
   PSY 281 Abnormal Psychology
   SOC 210 Introduction to Sociology
   SOC 213 Sociology of the Family
   SOC 225 Social Diversity
   COM 110 Introduction to Communication
   MAT 115 Mathematical Models
   MAT 121 Algebra/Trigonometry I
   MAT 122 Algebra/Trigonometry II
   MAT 140 Survey of Mathematics
   MAT 155 Statistical Analysis
   MAT 161 College Algebra
   MAT 171 Precalculus Algebra
   MAT 172 Precalculus Trigonometry
   MAT 175 Precalculus
   MAT 223 Applied Calculus
   MAT 263 Brief Calculus
   MAT 271 Calculus I
   MAT 272 Calculus II
   MAT 273 Calculus III

Major Requirements

CTI 110 Web, Programming, and Database Foundation 3.0
CTI 120 Network and Security Foundation 3.0
CTS 115 Information Systems Business Concepts 3.0
SEC 110 Security Concepts 3.0
Select one of the following: 6.0
   CTI 130 Operating Systems and Device Foundation
   NOS 110 Operating Systems Concepts
   & CTS 120 and Hardware/Software Support
   CET 111 Computer Upgrade/Repair I
   & CET 211 and Computer Upgrade/Repair II
   NOS 120 Linux/UNIX Single User 3.0
   NET 125 Networking Basics 3.0
   SEC 150 Secure Communications 3.0
   SEC 160 Security Administration I 3.0
   CCT 121 Computer Crime Investigation 4.0
   CCT 110 Introduction to Cyber Crime 3.0
   CCT 250 Network Vulnerabilities I 3.0

Total Credits 46

Diploma in Computer Technology Integration with an emphasis in Network Administration (D25500-D9)

The Networking Administration curriculum prepares individuals for employment supporting network environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image and video communications in business, industry and education.
Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is placed on the implementation and management of network software and the implementation and management of hardware such as switches and routers.

This diploma is designed to be completed in conjunction with the Computer Technology Integration degree (A25500).

General Education Requirements
- ENG 111 Expository Writing 3.0
- COM 110 Introduction to Communication 3.0
- MAT 140 Survey of Mathematics 3.0

Major Requirements
- CTS 115 Information Systems Business Concepts 3.0
- CTI 110 Web, Programming, and Database Foundation 3.0
- CTI 120 Network and Security Foundation 3.0
- Select one of the following: 6.0
  - CTI 130 Operating Systems and Device Foundation
  - NOS 110 Operating Systems Concepts
    & CTS 120 and Hardware/Software Support
  - CET 111 Computer Upgrade/Repair I
    & CET 211 and Computer Upgrade/Repair II
- CIS 111 Basic PC Literacy 2.0
- NET 125 Networking Basics 3.0
- SEC 110 Security Concepts 3.0
- NOS 130 Windows Single User 3.0
- NOS 230 Windows Administration I 3.0
- NOS 231 Windows Administration II 3.0
- CCT 110 Introduction to Cyber Crime 3.0
- NET 289 Networking Project 3.0

Total Credits 47

Diploma in Computer Technology Integration with an emphasis in Web Technologies (D25500-13)

The diploma is designed to provide students with a foundation in working with the design and development of Web pages, websites, and applications using current web standards. Students will also be introduced to the development of data driven applications.

Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of web applications, websites, web services, and related areas of distributed computing.

This diploma is designed to be completed in conjunction with the Computer Technology Integration Degree (A25500).

General Education Requirements
- ENG 111 Expository Writing 3.0
- Select 3 credits of the following: 3.0
  - ART 111 Art Appreciation
  - ART 114 Art History Survey I
  - ART 115 Art History Survey II
  - ART 116 Survey of American Art
  - ART 117 Non-Western Art History
  - DAN 110 Dance Appreciation
  - DAN 211 Dance History I
  - DAN 212 Dance History II
  - DRA 111 Theatre Appreciation
  - DRA 112 Literature of the Theatre
  - DRA 122 Oral Interpretation
  - ENG 231 American Literature I
  - ENG 232 American Literature II

Back to Top
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 115</td>
<td>Critical Thinking</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>HUM 220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>PHI 240</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>CTS 115</td>
<td>Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 110</td>
<td>Web, Programming, and Database Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 120</td>
<td>Network and Security Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 130</td>
<td>Operating Systems and Device Foundation</td>
<td>6.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 120</td>
<td>Introduction to Internet Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 140</td>
<td>Web Development Tools</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 210</td>
<td>Web Design</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 220</td>
<td>Advanced Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 225</td>
<td>Content Management Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 250</td>
<td>Database Driven Websites</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: 45

Computer Technology Integration
Database Administration Diplomas

Overview
As society increases its dependency on technology, in particular information systems; databases have been the engine in charge of supporting these systems. Given the exponential growth of the data managed for these information systems, database engine vendors have increased the sophistication and complexity of their platform every year. Develop the skills to handle these complexity requires students to follow a plan of study that not only teach the foundations of database administration, but also review the complexity of a specific vendor’s platform.

Admissions
- A high school diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Developmental studies mathematics and English courses are available for students to build basic skills and knowledge.

Students are expected to have a working knowledge of Computer Hardware, the Windows Operating System environment and common applications.
Students are expected to own a computer meeting the hardware specifications of the current program minimum requirements which can be obtained from the program chair.

Students pursuing a career in Database Administration should be in good mental and physical health.

Students pursuing a career in Database Administration should be able to perform well in a high stress environment.

**Diploma in Computer Technology Integration with an emphasis in Database Analysis/Programming (D25500-14)**

The diploma is designed to provide students with the skills necessary to design, implement, and manage databases. Data warehouse and mining concepts are introduced. Course work includes Database Design, Programming in detail covering Administration concepts briefly. Some database tools are introduced.

This diploma is designed to be completed in conjunction with the Computer Technology Integration Degree (A25500).

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110 Introduction to Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 115 Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 110 Web, Programming, and Database Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 120 Network and Security Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110 Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 130 Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110 Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 120 Database Programming I</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 210 Database Administration</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 115 Intro to Programming &amp; Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240 Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 110 Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 250 Database Driven Websites</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 220 Oracle Database Programming II</td>
<td>3.0</td>
</tr>
<tr>
<td>or DBA 221 SQL Server Database Programming II</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111 Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110 Introduction to Computers</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: 47

**Computer Technology Integration Certificates (C25500)**

**Computer Technology Integration Certificate in Cyber Crime and Digital Forensics (C25500-C1)**

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CCT 110 Introduction to Cyber Crime</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 121 Computer Crime Investigationn</td>
<td>4.0</td>
</tr>
<tr>
<td>SEC 110 Security Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 130 Operating Systems and Device Foundation</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Total Credits: 16

---

• Computer Technology Integration Certificate in Cyber Crime and Digital Forensics (C25500-C1)
Computer Technology Integration Certificate
Specialization in Advanced Digital Forensics
(C25500-C2)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCT 121</td>
<td>Computer Crime Investigation</td>
<td>4.0</td>
</tr>
<tr>
<td>CCT 240</td>
<td>Data Recovery Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 241</td>
<td>Advanced Data Recovery</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 250</td>
<td>Network Vulnerabilities I</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 120</td>
<td>Network and Security Foundation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 16

Back to Top

Certificate in Computer Technology Integration with an emphasis in Web Technologies - Web Development I (C25500-C6)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 214</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 251</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 12

Back to Top

Computer Technology Integration Certificate
Specialization in Integration Foundations
(C25500-C3)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTI 110</td>
<td>Web, Programming, and Database Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 120</td>
<td>Network and Security Foundation</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 115</td>
<td>Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 130</td>
<td>Operating Systems and Device Foundation</td>
<td>6.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 17

Back to Top

Certificate in Computer Technology Integration with an emphasis in Web Technologies - Web Development II (C25500-C7)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 210</td>
<td>Web Design</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 220</td>
<td>Advanced Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 225</td>
<td>Content Management Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 250</td>
<td>Database Driven Websites</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 12

Back to Top

Computer Technology Integration Certificate
Specialization in Mobile Apps Development Level I (C25500-C4)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 110</td>
<td>Internet/Web Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 120</td>
<td>Introduction to Internet Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 141</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 151</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 12

Back to Top

Computer Technology Certificate
Specialization in Technical Systems (C25500-C8)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS 120</td>
<td>Linux/UNIX Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 130</td>
<td>Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 125</td>
<td>Networking Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>SEC 110</td>
<td>Security Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 110</td>
<td>Introduction to Cyber Crime</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 15

Back to Top

Computer Technology Integration Certificate
Specialization in Mobile Apps Development Level II (C25500-C5)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 125</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 187</td>
<td>Wireless and Internet Programming</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Back to Top
### Certificate in Computer Technology Integration with an emphasis in Microsoft Systems Administration (C25500-C9)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS 130</td>
<td>Windows Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 230</td>
<td>Windows Administration I</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 231</td>
<td>Windows Administration II</td>
<td>3.0</td>
</tr>
<tr>
<td>CTI 130</td>
<td>Operating Systems and Device Foundation</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Total Credits**

15

---

### Certificate in Computer Technology Integration with an emphasis in Cisco Administration (C25500-10)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET 125</td>
<td>Networking Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 126</td>
<td>Routing Basics</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 225</td>
<td>Routing &amp; Switching I</td>
<td>3.0</td>
</tr>
<tr>
<td>NET 226</td>
<td>Routing and Switching II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits**

12

---

### Certificate in Computer Technology Integration with an emphasis in CTI Fundamentals II Software Development (C25500-C31)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTI 130</td>
<td>Operating Systems and Device Foundation</td>
<td>6.0</td>
</tr>
<tr>
<td>NOS 120</td>
<td>Linux/UNIX Single User</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 143</td>
<td>Object-Oriented Programming</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits**

18

---

### Certificate in Computer Technology Integration with an emphasis in Software Development (C25500-32)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 151</td>
<td>JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
</tbody>
</table>

---

### Computer Technology Integration Certificate Specialization in Database Fundamentals I Certificate (C25500-33)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 112</td>
<td>Database Utilization</td>
<td>3.0</td>
</tr>
<tr>
<td>NOS 110</td>
<td>Operating Systems Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 120</td>
<td>Database Programming I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

17

---

### Computer Technology Integration Certificate Specialization in .Net Software Development Fundamentals (C25500-35)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 143</td>
<td>Object-Oriented Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 153</td>
<td>C# Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 240</td>
<td>Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>WEB 115</td>
<td>Web Markup and Scripting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**

14

---

### Computer Technology Integration Certificate Specialization in Java Software Development Fundamentals (C25500-36)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 151</td>
<td>JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Computer-Integrated Machining Technology (A50210)

Degree Awarded
The Associate in Applied Science degree - Computer-Integrated Machining Technology will be awarded by the College upon completion of the program.

Admissions
- High school diploma or equivalent is required.
- CPCC placement tests are required in English and mathematics. Developmental mathematics and English courses are available for students to build skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Note: Students who do not take program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

Contact Information
The Computer-Integrated Machining Technology program is in the Engineering Technologies Division. For more information, call 704.330.6608.

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting

Select 3 credits of the following: 3.0
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking
MAT 115 Mathematical Models 3.0
or MAT 121 Algebra/Trigonometry I

Select 3 credits of the following: 3.0
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
College-Level Programs

ENG 252 Western World Literature II
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 215 Philosophical Issues
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
REL 110 World Religions
REL 111 Eastern Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America

Select 3 credits of the following: 3.0
ANT 210 General Anthropology
ANT 220 Cultural Anthropology
ANT 221 Comparative Cultures
ECO 151 Survey of Economics
ECO 251 Principles of Microeconomics
ECO 252 Principles of Macroeconomics
GEO 111 World Regional Geography
HIS 111 World Civilizations I
HIS 112 World Civilizations II
HIS 131 American History I
HIS 132 American History II
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations
PSY 150 General Psychology
PSY 241 Developmental Psychology
PSY 281 Abnormal Psychology
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity
POL 110 Introduction to Political Science
PSY 237 Social Psychology
SOC 220 Social Problems

Technical Electives
Select 3 credits of the following: 3.0
DFT 121 Introduction to GD&T
DFT 154 Intro to Solid Modeling
ISC 132 Manufacturing Quality Control
WLD 112 Basic Welding Processes
COE 112 Co-Op Work Experience I
COE 122 Co-Op Work Experience II
MAC 234 Advanced Multi-Axis Machining

Total Credits 70

Computer-Integrated Machining Technology Diploma (D50210)

Computer-Integrated Machining Technology Diploma gives individuals the opportunity to gain entry-level employment in the metal working industries. A basic knowledge of conventional machine tools, CNC programming and CNC operations is provided by hands-on activities on equipment commonly used in industry. Coursework will apply toward Computer-Integrated Machining Technology A.A.S. Degree program.

Degree Awarded

A Diploma in Computer-Integrated Machining Technology is awarded by the College upon completion of this program.

Admissions

Completion of a high school diploma or the equivalent is encouraged as a foundation of a career in this area. Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note: Students who do not enroll in program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

Contact Information

Computer-Integrated Machining Technology program is in the Engineering Technologies Division. For more information, call 704.330.6608.

General Education Requirements
ENG 111 Expository Writing 3.0
SOC 210 Introduction to Sociology 3.0

Major Requirements
MAC 111 Machining Technology I 6.0
MAC 142 Machining Applications II 4.0
MAC 121 Introduction to CNC 2.0
MAC 122 CNC Turning 2.0
MAC 131 Blueprint Reading-Machining I 2.0
MAC 143 Machining Applications III 4.0
MAC 132 Blueprint Reading-Machining II 2.0
MAC 114 Introduction to Metrology 2.0
MAC 151 Machining Calculations 2.0
MAC 152 Advanced Machining Calculations 2.0
MAC 124 CNC Milling 2.0
MAC 222 Advanced CNC Turning 2.0
MAC 224 Advanced CNC Milling 2.0
MEC 172 Introduction to Metallurgy 3.0
MAC 231 Cam: Computer Numerical Control Turning 3.0
MAC 232 CAM: Computer Numerical Control Milling 3.0
EGR 120 Engineering and Design Graphics 3.0
MAC 228 Advanced CNC Processes 3.0

Total Credits 70

Computer-Integrated Machining Technology Diploma (D50210)

Computer-Integrated Machining Technology Diploma gives individuals the opportunity to gain entry-level employment in the metal working industries. A basic knowledge of conventional machine tools, CNC programming and CNC operations is provided by hands-on activities on equipment commonly used in industry. Coursework will apply toward Computer-Integrated Machining Technology A.A.S. Degree program.

Degree Awarded

A Diploma in Computer-Integrated Machining Technology is awarded by the College upon completion of this program.

Admissions

Completion of a high school diploma or the equivalent is encouraged as a foundation of a career in this area. Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Note: Students who do not enroll in program-related courses for two consecutive semesters must reenter the program under the Catalog in effect at the time of reentry.

Contact Information

Computer-Integrated Machining Technology program is in the Engineering Technologies Division. For more information, call 704.330.6608.
MAC 122  CNC Turning  2.0
MAC 132  Blueprint Reading-Machining II  2.0
MAC 143  Machining Applications III  4.0
MAC 151  Machining Calculations  2.0
MAC 152  Advanced Machining Calculations  2.0
MAC 222  Advanced CNC Turning  2.0
MAC 224  Advanced CNC Milling  2.0
MEC 172  Introduction to Metallurgy  3.0

Total Credits  43

• Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information
Computer-Integrated Machining Technology Program is in the Engineering Technologies Division. For more information, call 704.330.6608.

Major Requirements
MAC 121  Introduction to CNC  2.0
MAC 122  CNC Turning  2.0
MAC 124  CNC Milling  2.0
MAC 222  Advanced CNC Turning  2.0
MAC 224  Advanced CNC Milling  2.0
MAC 231  CAM: Computer Numerical Control Turning  3.0
MAC 232  CAM: Computer Numerical Control Milling  3.0

Total Credits  16

Back to Top

Computer-Integrated Machining Technology Certificate with a Specialization in Fundamentals of Machine Tools Certificate (C50210-C2)
This certificate provides the graduate with enhanced skills in the set up and operation of conventional machine tools. Course work will apply toward Computer-Integrated Machining Technology Degree Program.

Certificate Awarded
A certificate is awarded in Fundamental of Machine Tools by the College upon completion of this program.

Admissions
• Completion of a high school diploma or equivalent is encouraged as a foundation of a career in this area.
• Some courses have prerequisites; check the Courses section for details.

Contact Information
Computer-Integrated Machining Technology Program is in the Engineering Technologies Division. For more information, call 704.330.6608.

Major Requirements
MAC 111  Machining Technology I  6.0
MAC 142  Machining Applications II  4.0
MAC 114  Introduction to Metrology  2.0
MAC 131  Blueprint Reading-Machining I  2.0
MAC 151  Machining Calculations  2.0

Total Credits  16

Back to Top

Computer-Integrated Machining Technology Certificate Specialization in Basic Machining Skills (C50210-C3)
### Computer-Integrated Machining Technology Certificate with a Specialization in Motorsports Machining Certificate I (C50210-C4)

This certificate provides the graduate with basic skills in the set-up and operation of conventional and computer numerical control machine tools used in the Motorsports machining labs.

#### Certificate Awarded

A certificate is awarded in Motorsports Machining by the College upon completion of the program.

#### Admissions

Completion of a high school diploma or equivalent is encouraged as a foundation of a career in this area.

#### Contact Information

Computer-Integrated Machining Technology Program is in the Engineering Technologies Division. For more information, call 704.330.6608.

#### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 111</td>
<td>Machining Technology I</td>
<td>6.0</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Blueprint Reading-Machining I</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 114</td>
<td>Introduction to Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 151</td>
<td>Machining Calculations</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 12

Back to Top

### Computer-Integrated Machining Technology Certificate with a Specialization in Advanced Machine Tool Operations (C50210-C5)

This certificate provides the graduate with advanced skills in the set-up and operation of conventional machines tools used in the Motorsports machining labs.

#### Certificate Awarded

A certificate is awarded in Advanced Machining Skills by the College upon completion of this program.

#### Admissions

Completion of a high school diploma or equivalent is encouraged as a foundation of a career in this area.

#### Contact Information

Computer-Integrated Machining Technology Program is in the Engineering Technologies Division. For more information, call 704.330.6608.

#### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 111</td>
<td>Machining Technology I</td>
<td>6.0</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Blueprint Reading-Machining I</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 121</td>
<td>Introduction to CNC</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 122</td>
<td>CNC Turning</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 114</td>
<td>Introduction to Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 151</td>
<td>Machining Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 124</td>
<td>CNC Milling</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

Back to Top

### Computer-Integrated Machining Technology Certificate with a Specialization in Advanced CNC Technology (C50210-C7)

This certificate provides the graduate with enhanced skills in the operation and set up of multi-axis CNC machining centers. This certificate will provide additional studies in multi-axis CNC machine tool operation.

#### Certificate Awarded

A certificate is awarded in Advanced CNC Technology by the College upon completion of this program.

#### Admissions

- Completion of a high school diploma or equivalent is encouraged as a foundation of a career in this area.
- Some courses have pre-requisites; check the Courses section for details.

#### Contact Information

Computer Integrated Machining Technology Program is in the Engineering Technologies Division. For more information, call 704.330.6608.

#### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 228</td>
<td>Advanced CNC Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>MAC 114</td>
<td>Introduction to Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MAC 234</td>
<td>Advanced Multi-Axis Machining</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 172</td>
<td>Introduction to Metallurgy</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Construction Management Technology

The Construction Management Technology curriculum is designed to prepare individuals for careers in the construction management field. Instruction includes safety, planning, scheduling, cost control, productivity, human relations, estimating and building codes.

Students will also gain proficiency in specific construction related skills. Successful graduates of the Construction Management Technologies curriculum will qualify for entry-level positions in the field of construction management. Such positions may include project manager, superintendent, estimator, or foreman.

Construction Management Technology (A35190)

Degree Awarded

An A.A.S. degree in Construction Management Technology is awarded by the College upon completion of this program.

Admissions

• Completion of a high school diploma or equivalent is required.
• Many courses have prerequisites; check the Courses section for details.

For More Information

The Construction Management program is in the Construction Technologies Division. For more information contact the program chair at 704.330.4421 or the division office at 704.330.4445, weekdays from 8 a.m.–5 p.m. Program counselors can be reached by calling 704.330.4437.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 120</td>
<td>Geometry and Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
</tbody>
</table>
POL 120  American Government
POL 210  Comparative Government
POL 220  International Relations
PSY 150  General Psychology
PSY 241  Developmental Psychology
PSY 281  Abnormal Psychology
SOC 210  Introduction to Sociology
SOC 213  Sociology of the Family
SOC 220  Social Problems
SOC 225  Social Diversity
PSY 237  Social Psychology
POL 110  Introduction to Political Science

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST 241</td>
<td>Planning/Estimating I</td>
<td>3.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 210</td>
<td>Construction Management Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 212</td>
<td>Total Safety Performance</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 214</td>
<td>Planning and Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 216</td>
<td>Costs and Productivity</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Codes and Inspections</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 218</td>
<td>Human Relations Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>CST 111</td>
<td>Construction I</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Small Business Management</td>
</tr>
</tbody>
</table>

Technical Electives

Select 12 credits of the following: 12.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110</td>
<td>Introduction to Refrigeration</td>
</tr>
<tr>
<td>AHR 111</td>
<td>HVACR Electricity</td>
</tr>
<tr>
<td>AHR 113</td>
<td>Comfort Cooling</td>
</tr>
<tr>
<td>AHR 114</td>
<td>Heat Pump Technology</td>
</tr>
<tr>
<td>AHR 130</td>
<td>HVAC Controls</td>
</tr>
<tr>
<td>CAR 110</td>
<td>Introduction to Carpentry</td>
</tr>
<tr>
<td>CAR 111</td>
<td>Carpentry I</td>
</tr>
<tr>
<td>EGR 250</td>
<td>Statics/Strength of Mater</td>
</tr>
<tr>
<td>CST 242</td>
<td>Planning/Estimating II</td>
</tr>
<tr>
<td>CIV 230</td>
<td>Construction Estimating</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>COE 131</td>
<td>Co-Op Work Experience III</td>
</tr>
<tr>
<td>COE 211</td>
<td>Co-Op Work Experience IV</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
</tr>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
</tr>
<tr>
<td>ELC 115</td>
<td>Industrial Wiring</td>
</tr>
<tr>
<td>EUS 110</td>
<td>Introduction to Electric Utility Industry</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
</tr>
<tr>
<td>SST 110</td>
<td>Introduction to Sustainability</td>
</tr>
<tr>
<td>SST 120</td>
<td>Energy Use Analysis</td>
</tr>
</tbody>
</table>

SST 130  Modeling Renewable Energy
SST 210  Issues in Sustainability
WLD 112  Basic Welding Processes
WOL 110  Basic Construction Skills
CST 150  Building Science

Total Credits 68

No diplomas offered.

• Construction Management Technology Certificate with a Specialization – Fast Track Carpentry (C35190-C1)
• Construction Management Technology Certificate with a Specialization – Entry Level Construction Supervision (C35190-C2)
• Construction Management Technology Certificate with a Specialization – Entry Level Estimating I (C35190-C3)
• Construction Management Technology Certificate with a Specialization – Entry Level Estimating II (C35190-C4)
• Construction Management Technology Certificate Specialization in Entry Level Project Supervision (C35190-C5)
• Construction Management Technology Certificate Specialization in Energy Infrastructure (C35190-C6)
• Construction Management Technology Certificate Specialization in Green Building (C35190-C7)

Construction Management Technology Certificates (C35190)

The certificates listed below can be earned in the Construction Management (A35190) program.

Admissions

• Completion of a high school diploma or equivalent is encouraged as the foundation of a career in this area.
• Many courses have perquisites or corequisite: check the Courses section for details

Contact Information

For more information, call 704.330.4421 or 704.330.4408.

Construction Management Technology Certificate with a Specialization – Fast Track Carpentry (C35190-C1)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CAR 110</td>
<td>Introduction to Carpentry</td>
<td>2.0</td>
</tr>
<tr>
<td>CAR 111</td>
<td>Carpentry I</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Total Credits 13

Back to Top
Construction Management Technology Certificate with a Specialization – Entry Level Construction Supervision (C35190-C2)

This certificate is also available to students enrolled in Career & College Promise.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Codes and Inspections</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 212</td>
<td>Total Safety Performance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 218</td>
<td>Human Relations Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Construction Management Technology Certificate Specialization in Entry Level Project Supervision (C35190-C5)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 210</td>
<td>Construction Management Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 212</td>
<td>Total Safety Performance</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 214</td>
<td>Planning and Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 216</td>
<td>Costs and Productivity</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 218</td>
<td>Human Relations Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Construction Management Technology Certificate with a Specialization – Entry Level Estimating I (C35190-C3)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Codes and Inspections</td>
<td>3.0</td>
</tr>
<tr>
<td>CST 241</td>
<td>Planning/Estimating I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Construction Management Technology Certificate Specialization in Energy Infrastructure (C35190-C6)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 210</td>
<td>Construction Management Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Codes and Inspections</td>
<td>3.0</td>
</tr>
<tr>
<td>EUS 110</td>
<td>Introduction to Electric Utility Industry</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Construction Management Technology Certificate Specialization in Green Building (C35190-C7)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CMT 120</td>
<td>Codes and Inspections</td>
<td>3.0</td>
</tr>
<tr>
<td>CST 111</td>
<td>Construction I</td>
<td>4.0</td>
</tr>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>CST 150</td>
<td>Building Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Cosmetology

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop...
manipulative skills. Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics. Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

Cosmetology, Associate Degree (A55140)

Degree Awarded
The Associate in Applied Science Degree – Cosmetology is awarded by the College upon completion of this program.

Admissions
• CPCC Application
• High School transcript
• College transcripts
• CPCC placement tests
• Cosmetology Program Application

Notes
Progression in this program is dependent upon a grade of “C” or better in all general education courses, as well as major and related courses.

Students making application to the CPCC Cosmetology Program will be required to submit a copy of his/her Social Security Card or Tax ID card or student visa information; government issued ID and proof of date of birth; and submit an acknowledgement of the NC State Board of Cosmetic Arts felony policy, found on the program application.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 111</td>
<td>Cosmetology Concepts I</td>
<td>4.0</td>
</tr>
<tr>
<td>COS 112</td>
<td>Salon I</td>
<td>8.0</td>
</tr>
<tr>
<td>COS 113</td>
<td>Cosmetology Concepts II</td>
<td>4.0</td>
</tr>
<tr>
<td>COS 114</td>
<td>Salon II</td>
<td>8.0</td>
</tr>
<tr>
<td>COS 115</td>
<td>Cosmetology Concepts III</td>
<td>4.0</td>
</tr>
<tr>
<td>COS 116</td>
<td>Salon III</td>
<td>4.0</td>
</tr>
<tr>
<td>COS 117</td>
<td>Cosmetology Concepts IV</td>
<td>2.0</td>
</tr>
<tr>
<td>COS 118</td>
<td>Salon IV</td>
<td>7.0</td>
</tr>
<tr>
<td>COS 240</td>
<td>Contemporary Design</td>
<td>2.0</td>
</tr>
<tr>
<td>COS 223</td>
<td>Contemp Hair Coloring</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Small Business Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: 69

No diplomas offered.

No certificates offered.
Criminal Justice Technology

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state and federal law enforcement, judicial processes, corrections and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics and community relations. Additional study may include issues and concepts of government, counseling, communications, computers and technology.

Employment opportunities exist in a variety of local, state and federal law enforcement, corrections and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer and loss prevention specialist. Employment with criminal justice agencies is subject to specific agency criteria; therefore, completion of a degree alone is no guarantee of eligibility of employment.

Criminal Justice Technology (A55180)
Degree Awarded
The Associate in Applied Science Degree - Criminal Justice is awarded by the College upon completion of this program.

Admissions

• A high school diploma or equivalent is required.
• Some courses require placement tests prior to registration.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Notes

• Students should complete CJC 111 during their first semester
• A minimum grade of “C” in all CJC prefix courses is required for successful completion of the program.
• Students enrolling in COE 112J must meet the following eligibility requirements: 2.5 GPA; 12 SHC within the program of study (A55180); and satisfactory completion of the following CJC courses: CJC 111, CJC 112, CJC 113, CJC 131, CJC 212, CJC 221 and CJC 231.

Contact Information
The Criminal Justice program is in the Public Safety Division. For more information, call 704.330.4165 or 704.330.4138.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
</tbody>
</table>
PHI 240 Introduction to Ethics  
REL 110 World Religions  
REL 111 Eastern Religions  
REL 211 Introduction to Old Testament  
REL 212 Introduction to New Testament  
REL 221 Religion in America

### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 111</td>
<td>Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 112</td>
<td>Criminology</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 113</td>
<td>Juvenile Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 131</td>
<td>Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 212</td>
<td>Ethics &amp; Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 221</td>
<td>Investigative Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>CJC 231</td>
<td>Constitutional Law</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Major Electives

Select 28 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 120</td>
<td>Interviews/Interrogations</td>
<td></td>
</tr>
<tr>
<td>CJC 132</td>
<td>Court Procedure &amp; Evidence</td>
<td></td>
</tr>
<tr>
<td>CJC 215</td>
<td>Organization &amp; Administration</td>
<td></td>
</tr>
<tr>
<td>CJC 222</td>
<td>Criminalistics</td>
<td></td>
</tr>
<tr>
<td>CJC 232</td>
<td>Civil Liability</td>
<td></td>
</tr>
<tr>
<td>CJC 114</td>
<td>Investigative Photography</td>
<td></td>
</tr>
<tr>
<td>CJC 121</td>
<td>Law Enforcement Operations</td>
<td></td>
</tr>
<tr>
<td>CJC 122</td>
<td>Community Policing</td>
<td></td>
</tr>
<tr>
<td>CJC 141</td>
<td>Corrections</td>
<td></td>
</tr>
<tr>
<td>CJC 151</td>
<td>Introduction to Loss Prevention</td>
<td></td>
</tr>
<tr>
<td>CJC 225</td>
<td>Crisis Intervention</td>
<td></td>
</tr>
<tr>
<td>CJC 160</td>
<td>Terrorism: Underlying Issues</td>
<td></td>
</tr>
<tr>
<td>CJC 170</td>
<td>Critical Incident Mgmt for Public Safety</td>
<td></td>
</tr>
<tr>
<td>CJC 211</td>
<td>Counseling</td>
<td></td>
</tr>
<tr>
<td>CJC 213</td>
<td>Substance Abuse</td>
<td></td>
</tr>
<tr>
<td>CJC 214</td>
<td>Victology</td>
<td></td>
</tr>
<tr>
<td>CJC 223</td>
<td>Organized Crime</td>
<td></td>
</tr>
<tr>
<td>CJC 233</td>
<td>Correctional Law</td>
<td></td>
</tr>
<tr>
<td>CJC 241</td>
<td>Community-Based Corrections</td>
<td></td>
</tr>
<tr>
<td>CJC 255</td>
<td>Issues in Criminal Justice Application</td>
<td></td>
</tr>
<tr>
<td>ASL 111</td>
<td>Elementary ASL I</td>
<td></td>
</tr>
<tr>
<td>ASL 181</td>
<td>ASL Lab 1</td>
<td></td>
</tr>
<tr>
<td>SPA 111</td>
<td>Elementary Spanish I</td>
<td></td>
</tr>
<tr>
<td>SPA 181</td>
<td>Spanish Lab 1</td>
<td></td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

### Total Credits

73

---

No diplomas offered.

- Criminal Justice Technology Certificate with a Specialization in Criminal Justice Management and Administration (C55180-C2)
- Criminal Justice Technology Certificate with a Specialization in Essentials of the Criminal Justice System (C55180-C3)
- Criminal Justice Technology Certificate with a Specialization in Essential Police Operations (C55180-C4)
- Criminal Justice Technology Certificate with a Specialization in Courts and the Law (C55180-C5)
- Criminal Justice Technology Certificate with a Specialization in Corrections (C55180-C6)
- Criminal Justice Technology Certificate with a Specialization in Criminal Justice and Special Populations (C55180-C7)
- Criminal Justice Technology Certificate with a Specialization in Crime Scene and Criminal Investigations (C55180-C8)
- Criminal Justice Technology Certificate Specialization in Basics of Criminal Justice (C55180-C9)

### Criminal Justice Certificate (C55180)

In addition to the Criminal Justice Technology degree (A55180), students can earn the following certificates:

### Criminal Justice Technology Certificate with a Specialization in Criminal Justice Management and Administration (C55180-C2)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 212</td>
<td>Ethics &amp; Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 170</td>
<td>Critical Incident Mgmt for Public Safety</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 211</td>
<td>Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 215</td>
<td>Organization &amp; Administration</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Total Credits

12
Criminal Justice Technology Certificate with a Specialization in Essentials of the Criminal Justice System (C55180-C3)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 111 Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 112 Criminology</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 131 Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 141 Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 151 Introduction to Loss Prevention</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate with a Specialization in Essential Police Operations (C55180-C4)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 121 Law Enforcement Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 122 Community Policing</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 221 Investigative Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>CJC 212 Ethics &amp; Community Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>13</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate with a Specialization in Courts and the Law (C55180-C5)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 131 Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 132 Court Procedure &amp; Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 231 Constitutional Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 232 Civil Liability</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>12</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate with a Specialization in Corrections (C55180-C6)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 141 Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 233 Correctional Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 241 Community-Based Corrections</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate with a Specialization in Criminal Justice and Special Populations (C55180-C7)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 113 Juvenile Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 213 Substance Abuse</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 214 Victimology</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 223 Organized Crime</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>12</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate with a Specialization in Crime Scene and Criminal Investigations (C55180-C8)

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 221 Investigative Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>CJC 114 Investigative Photography</td>
<td>2.0</td>
</tr>
<tr>
<td>CJC 120 Interviews/Interrogations</td>
<td>2.0</td>
</tr>
<tr>
<td>CJC 222 Criminalistics</td>
<td>3.0</td>
</tr>
<tr>
<td>CCT 121 Computer Crime Investigation</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>15</td>
</tr>
</tbody>
</table>

Criminal Justice Technology Certificate Specialization in Basics of Criminal Justice (C55180-C9)

This certificate is also available to students enrolled in Career & College Promise.

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJC 111 Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 112 Criminology</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 131 Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 231 Constitutional Law</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td>12</td>
</tr>
</tbody>
</table>
Culinary Arts

The Culinary Arts curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of foodservice settings including full-service restaurants, hotels, resorts, clubs, catering operations, contract foodservice and health care facilities.

Students will be provided theoretical knowledge/practical applications that provide critical competencies to meet industry demands, including environmental stewardship, operational efficiencies and professionalism. Courses include sanitation/safety, baking, garde manger, culinary fundamentals/production skills, nutrition, customer service, purchasing/cost control and human resource management.

Graduates should qualify for entry-level opportunities including prep cook, line cook and station chef. American Culinary Federation certification may be available to graduates. With experience, graduates may advance to positions including sous chef, pastry chef, executive chef, or foodservice manager.

Culinary Arts (A55150)

Degree Awarded

The Associate in Applied Science degree – Culinary Arts is awarded by the College upon completion of this program.

Admissions

- Complete a CPCC Admissions Form.
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM and BPA prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see Culinary Arts Program Chair, Jim Bowen 704.330.6770.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.
- Students must have a CUL, HRM, or BPA program code.

Notes

- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.

Contact Information

The Culinary Arts program is in the Hospitality Education Division. For more information, call 704.330.6301, 704.330.6770, or 704.330.6721.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits from the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits from the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits from the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits from the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
</tbody>
</table>
CUL 110 Sanitation and Safety 2.0
CUL 140 Culinary Skills I 5.0
CUL 160 Baking I 3.0
CUL 170 Garde Manger I 3.0
CUL 240 Culinary Skills II 5.0
HRM 245 Human Resource Management-Hospitality 3.0
HRM 220 Cost Control-Food and Beverage 3.0
COE 112 Co-Op Work Experience I 2.0
CUL 135 Food and Beverage Service 2.0
NUT 110 Nutrition 3.0
or CUL 112 Nutrition for Foodservice
CUL 135A Food and Beverage Service Lab 1.0
CUL 150 Food Science 2.0
CUL 160A Baking I Lab 1.0
CUL 260 Baking II 3.0
CUL 260A Baking II Lab 1.0
HRM 225 Beverage Management 3.0
CUL 170A Garde Manger I Lab 1.0
CUL 111 Success in Hospitality Studies 1.0
CUL 140A Culinary Skills I Lab 1.0
CUL 240A Culinary Skills II Lab 1.0
CUL 230 Global Cuisines 5.0
CUL 230A Global Cuisines Lab 1.0
CUL 273 Career Development 1.0
Select one of the following: 3.0
CUL 285 Competition Fundamentals

No diplomas offered.

No certificates offered.

Cytotechnology

Cytotechnology is an advanced allied health career which prepares the individual to use specialized equipment to study cells for detecting cancer, hormonal abnormalities and other pathological disease processes. Individuals entering this curriculum must have earned a bachelor’s degree with a concentration in the biological sciences.

Coursework includes entry-level knowledge and skills in cell collection and preparation and microscopic use to interpret specimens. Graduates work in conjunction with pathologists to perform special diagnostic procedures. Upon successful completion of the program, graduates receive a certificate in cytotechnology and are eligible to take the National Board of Certification Examination of the American Society for Clinical Pathology (ASCP). Cytotechnologists may find employment in hospital and university laboratories, private laboratories, private companies and research facilities.

No degrees offered.

Cytotechnology (C45220)

Certificate Awarded

A Certificate in Cytotechnology is awarded by the College upon successful completion of the program.

Admissions

Students wishing to apply to the Cytotechnology Program must complete the following requirements prior to admission:

• Bachelors degree from an accredited college or university that includes:
  Biology: 20 semester hours (30 quarter hours)
  Chemistry: 8 semester hours (12 quarter hours)
  Mathematics: 3 semester hours (5 quarter hours)
  Humanities: min. of 4 semester hours (6 quarter hours)

• 2.5 GPA in sciences courses as well as an overall 2.0 GPA is recommended.

• International students must submit scores from both the Test of Spoken English (TSE) and the Test of English as a Foreign Language (TOEFL) prior to the application deadline.

• International students must submit transcript evaluation for course work completed outside the U.S. from an agency approved by the American Society for Clinical Pathology. A list of these agencies may be obtained by calling the ASCP at 800.267.2727.
• All students must submit (1) an application to the college, (2) two letters of recommendation to the Cytotechnology Program Chair from previous science professors and (3) all college transcripts. Each applicant must also complete an interview with the program chair.

Notes
The Cytotechnology program is a full-time, 12-month program that begins fall semester of each year. Progression in the program is dependent on satisfying course prerequisites, co-requisites and meeting minimal levels of performance for each course. Graduates of this program may apply to take the Cytotechnology Certification Examination administered by the Board of Certification of the American Society for Clinical Pathology.

The Cytotechnology program at CPCC is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Cytotechnology Programs Review Committee (CPRC) of the American Society of Cytopathology (ASC).

CAAHEP
1361 Park Street
Clearwater, FL 33756
727.210.2350
www.caahep.org

In addition to tuition and textbooks, costs of the program include the following: uniforms, lab coat, a physical examination including immunizations (tetanus toxoid, Hepatitis B vaccinations [series of three], TB test, color blindness test, etc.), costs associated with clinical travel and housing and registration fee for the Board of Certification Examination.

In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information
The Cytotechnology program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/cytotechnology first. If further assistance is needed, contact the Program Chair at 704.330.6383.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYT 210</td>
<td>Intro to Clinical Cyto</td>
<td>4.0</td>
</tr>
<tr>
<td>CYT 212</td>
<td>Intro to Cyto Techniques</td>
<td>4.0</td>
</tr>
<tr>
<td>CYT 214</td>
<td>Gynecological Cytology</td>
<td>14.0</td>
</tr>
<tr>
<td>CYT 216</td>
<td>Clin &amp; Diag Interp I</td>
<td>4.0</td>
</tr>
<tr>
<td>CYT 220</td>
<td>Non-Gynecological Cytology</td>
<td>12.0</td>
</tr>
<tr>
<td>CYT 222</td>
<td>Cytopreparation Technique</td>
<td>2.0</td>
</tr>
<tr>
<td>CYT 224</td>
<td>Gynecological Cytology Clinical Practicum I</td>
<td>4.0</td>
</tr>
<tr>
<td>CYT 226</td>
<td>Clinical &amp; Diagnostic Interpretation II</td>
<td>4.0</td>
</tr>
<tr>
<td>CYT 230</td>
<td>Non-Gynecological Cytology Clinical Practicum</td>
<td>2.0</td>
</tr>
<tr>
<td>CYT 232</td>
<td>Clinical Cytology Practicum</td>
<td>1.0</td>
</tr>
<tr>
<td>CYT 234</td>
<td>Gynecological Cytology Clinical Pract II</td>
<td>3.0</td>
</tr>
<tr>
<td>CYT 236</td>
<td>Cytology Literature Review</td>
<td>1.0</td>
</tr>
<tr>
<td>CYT 238</td>
<td>Cyt Professional Issues</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>57</strong></td>
</tr>
</tbody>
</table>

Dental Assisting
Dental assistants help dentists in the delivery of dental treatment and function as integral members of the dental team while performing chair-side and related office and laboratory procedures.

Coursework includes instruction in general studies, biomedical sciences, dental courses, and clinical sciences and clinical practice. A combination of lecture, laboratory and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry and clinical procedures.

Graduates may be eligible to take the Dental Assisting National Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

No degrees offered.

Dental Assisting Diploma (D45240)

Diploma Awarded
A Diploma in Dental Assisting is awarded by the college upon completion of this program.

Program Accreditation
The Dental Assisting Program at CPCC is accredited by the American Dental Association, Commission on Dental Accreditation. (CODA)

Admissions
Please refer to the Admission Steps for degree, diploma, or certificate students:

• Complete a CPCC general application for admission.
• Submit high school, as well as college transcripts to Student Records.
• Take placement tests in English, reading and arithmetic.
• Schedule and attend a meeting with an academic advisor to review placement test scores, program information and select courses for registration.
• Complete and submit a Dental Assisting Program Application by deadline date.
• Take applicable Developmental Studies courses.
• Progression in this program is dependent upon a grade of “C” or better in all general education courses, as well as major and related courses.

Notes
Costs of this program, in addition to tuition and textbooks, will include school uniforms and supplies, fees for professional organization dues and national board testing, a current physical examination, blood and drug screen tests and updated immunizations.

Reliable transportation is needed to meet off campus clinical rotation requirements.

Students must demonstrate proficiency in basic computer skills through completed course work in CIS 110 or CIS 110 or testing.
Students must be certified by the American Heart Association in “Health Care Provider Level” CPR or by the American Red Cross in “CPR for the Professional Rescuer” prior to registering for DEN 101 or DEN 112.

Students must successfully complete all prerequisite DEN courses prior to beginning clinical rotations.

In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information
The Dental Assisting program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcce.edu/health_sciences/dental-assisting. If further assistance is needed, contact the Program Chair at 704.330.4614.

General Education Requirements
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 101</td>
<td>Preclinical Procedures</td>
<td>7.0</td>
</tr>
<tr>
<td>DEN 102</td>
<td>Dental Materials</td>
<td>5.0</td>
</tr>
<tr>
<td>DEN 103</td>
<td>Dental Sciences</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 111</td>
<td>Infection/Hazard Control</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 104</td>
<td>Dental Health Education</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 105</td>
<td>Practice Management</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 106</td>
<td>Clinical Practice I</td>
<td>5.0</td>
</tr>
<tr>
<td>DEN 107</td>
<td>Clinical Practice II</td>
<td>5.0</td>
</tr>
<tr>
<td>DEN 112</td>
<td>Dental Radiography</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 100</td>
<td>Basic Orofacial Anatomy</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Total Credits 47

Dental Hygiene

The Dental Hygiene curriculum prepares individuals with the knowledge and skills to access, plan, implement and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene techniques, provide periodontal therapy, expose radiographs, apply preventive agents, complete necessary chart entries and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include positions in dental offices, hospital clinics, schools, public health agencies, industry and professional education.

Dental Hygiene (A45260)

Degree Awarded
The Associate in Applied Science degree - Dental Hygiene Degree is awarded by the College upon completion of this program.

Admissions
Please refer to the Admission Steps for Degree Diploma, or Certificate students:

- Complete a CPCC application.
- Submit high school transcripts, as well as any college transcripts, to Student Records.
- Take required placement tests or obtain a waiver.
- Meet with a counselor or advisor to review placement test scores, program information and select courses for registration.
- Complete and submit a Dental Hygiene Application by the deadline date.
- Take applicable Developmental Education courses.
- Many courses have prerequisites or corequisites; check the Courses section for details.
- Progression in this program is dependent upon a grade of “C” or better in all general education courses, as well as major and related courses.

In any Associate Degree Health Sciences program for which there are more applicants who have completed the preadmission requirements than there are positions, admission points will be assigned according to the applicant’s documented record. Criteria for selection includes scores on standardized tests, past academic performance and experience in the field of interest.

Notes
All students are required to be certified in first aid and Health Care Provider CPR or CPR for Professional Rescuer before entering the Dental Hygiene Program.

Students must have completed at least a high school chemistry course with a laboratory or its equivalent prior to being accepted into the dental hygiene program. CHM 121 and CHM 121A is an acceptable substitute for high school chemistry. The chemistry requirement must be completed not more than five years prior to acceptance.

Students must demonstrate basic computer competencies through course work or testing. The division director of Computer Office and Information Systems will determine equivalent competency.

Costs of this program, in addition to tuition and textbooks, include uniforms, instruments, physical examination and specific vaccinations.

Licensure to practice dental hygiene is required prior to working in any state or jurisdiction.

The North Carolina State Board of Dental Examiners may request information regarding conviction of a felony and/or misdemeanor and/or current charges on the application for licensure and may decide not to license an individual based on the results of an investigation.

In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.
United States citizens or are otherwise legally authorized residents of the United States.

**Contact Information**

The Dental Hygiene program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences. If further assistance is needed, contact the Program Chair at 704.330.6365.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>PHI 240</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEN 110</td>
<td>Orofacial Anatomy</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 111</td>
<td>Infection/Hazard Control</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 112</td>
<td>Dental Radiography</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 120</td>
<td>Dental Hygiene Preclinic Lecture</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 121</td>
<td>Dental Hygiene Preclinical Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 123</td>
<td>Nutrition/Dental Health</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 124</td>
<td>Periodontology</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 130</td>
<td>Dental Hygiene Theory I</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 131</td>
<td>Dental Hygiene Clinic I</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 140</td>
<td>Dental Hygiene Theory II</td>
<td>1.0</td>
</tr>
<tr>
<td>DEN 141</td>
<td>Dental Hygiene Clinic II</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 220</td>
<td>Dental Hygiene Theory III</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 221</td>
<td>Dental Hygiene Clinic III</td>
<td>4.0</td>
</tr>
<tr>
<td>DEN 223</td>
<td>Dental Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 224</td>
<td>Materials and Procedures</td>
<td>2.0</td>
</tr>
<tr>
<td>DEN 230</td>
<td>Dental Hygiene Theory IV</td>
<td>1.0</td>
</tr>
<tr>
<td>DEN 231</td>
<td>Dental Hygiene Clinic IV</td>
<td>4.0</td>
</tr>
<tr>
<td>DEN 232</td>
<td>Community Dental Health</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 233</td>
<td>Professional Development</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 175</td>
<td>General Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>DEN 222</td>
<td>General &amp; Oral Pathology</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 168</td>
<td>Anatomy and Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>DEN 125</td>
<td>Dental Office Emergencies</td>
<td>1.0</td>
</tr>
<tr>
<td>BIO 169</td>
<td>Anatomy and Physiology II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits: 76

No diplomas offered.

No certificates offered.

**Diesel and Heavy Equipment Technology**

The Diesel and Heavy Equipment Technology program prepares individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field. The degree program prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as Heavy Duty Trucks over one ton classification, buses, ships, railroad locomotives, and equipment; as well as stationary diesel engines in electrical generators and related equipment.
# Diesel and Heavy Equipment Technology (A60460)

## General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>PHI 240</td>
<td>Introduction to Ethics</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 112</td>
<td>Western Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

## Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN 140</td>
<td>Transportation Climate Control</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 110</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>HET 114</td>
<td>Power Trains</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN 140A</td>
<td>Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 170</td>
<td>Pc Skills for Transportation</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 180</td>
<td>Basic Welding for Transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>TRN 180A</td>
<td>Basic Welding for Transportation Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 115</td>
<td>Electronic Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>HET 128</td>
<td>Medium/Heavy Duty Tune Up</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
<tr>
<td>HYD 112</td>
<td>Hydraulics-Medium and Heavy Duty</td>
<td>2.0</td>
</tr>
<tr>
<td>Select 8 credits from the following:</td>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>COE 132</td>
<td>Co-Op Work Experience III</td>
<td></td>
</tr>
<tr>
<td>COE 212</td>
<td>Co-Op Work Experience IV</td>
<td></td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td></td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td></td>
</tr>
<tr>
<td>HYD 134</td>
<td>Hydraulic/Hydrostatic Construction</td>
<td></td>
</tr>
<tr>
<td>HYD 210</td>
<td>Advanced Hydraulics</td>
<td></td>
</tr>
<tr>
<td>TRN 145</td>
<td>Advanced Transportation Electronics</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 72

## Diplomas

**Diesel and Heavy Equipment Technology Diploma (D60460-D1)**

## General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

## Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN 140</td>
<td>Transportation Climate Control</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 110</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>HET 114</td>
<td>Power Trains</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN 140A</td>
<td>Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 170</td>
<td>Pc Skills for Transportation</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
<tr>
<td>HYD 112</td>
<td>Hydraulics-Medium and Heavy Duty</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Select 8 credits from the following: 8.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>COE 132</td>
<td>Co-Op Work Experience III</td>
<td></td>
</tr>
<tr>
<td>COE 212</td>
<td>Co-Op Work Experience IV</td>
<td></td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td></td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td></td>
</tr>
<tr>
<td>HYD 134</td>
<td>Hydraulic/Hydrostatic Construction</td>
<td></td>
</tr>
<tr>
<td>HYD 210</td>
<td>Advanced Hydraulics</td>
<td></td>
</tr>
<tr>
<td>TRN 145</td>
<td>Advanced Transportation Electronics</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 72
Select 4.0 credits from the following courses:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>4.0</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td></td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td></td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 45

Diesel and Heavy Equipment Technology/Construction Equipment Diploma (D60460-D2)

**General Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN 140</td>
<td>Transportation Climate Control</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 110</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>HET 114</td>
<td>Power Trains</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN 140A</td>
<td>Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 180</td>
<td>Basic Welding for Transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>TRN 180A</td>
<td>Basic Welding for Transportation Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 115</td>
<td>Electronic Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>HYD 112</td>
<td>Hydraulics-Medium and Heavy Duty</td>
<td>2.0</td>
</tr>
<tr>
<td>HYD 134</td>
<td>Hydraulic/Hydrostatic Construction</td>
<td>4.0</td>
</tr>
<tr>
<td>HYD 210</td>
<td>Advanced Hydraulics</td>
<td>2.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 48

- Diesel and Heavy Equipment Technology Certificate Specialization in Forklift Repair (C60460-C1)
- Diesel and Heavy Equipment Technology Certificate Specialization in Trailer Mechanic Services (C60460-C2)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair I (C60460-C3)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair II (C60460-C4)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair III (C60460-C5)
- Diesel and Heavy Equipment Technology Certificate Specialization in Braking Systems (C60460-C6)
- Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Engine Systems (C60460-C7)
- Diesel and Heavy Equipment Technology Certificate Specialization in Suspension and Alignment Systems (C60460-C8)

Diesel and Heavy Equipment Technology Certificates

**Diesel and Heavy Equipment Technology Certificate Specialization in Forklift Repair (C60460-C1)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 110</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HYD 112</td>
<td>Hydraulics-Medium and Heavy Duty</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 17

**Diesel and Heavy Equipment Technology Certificate Specialization in Trailer Mechanic Services (C60460-C2)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 180</td>
<td>Basic Welding for Transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>TRN 180A</td>
<td>Basic Welding for Transportation Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits 15

**Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair I (C60460-C3)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 140</td>
<td>Transportation Climate Control</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 110</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>TRN 140A</td>
<td>Transportation Climate Control Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits 17

138
### Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair II (C60460-C4)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>TRN 180</td>
<td>Basic Welding for Transportation</td>
<td>3.0</td>
</tr>
<tr>
<td>TRN 180A</td>
<td>Basic Welding for Transportation Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

### Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Service Repair III (C60460-C5)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Diesel Engines</td>
<td>6.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Electronic Engines</td>
<td>3.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 128</td>
<td>Medium/Heavy Duty Tune Up</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

### Diesel and Heavy Equipment Technology Certificate Specialization in Braking Systems (C60460-C6)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120</td>
<td>Basic Transportation Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 120A</td>
<td>Basic Transportation Electrical Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

### Diesel and Heavy Equipment Technology Certificate Specialization in Diesel Engine Systems (C60460-C7)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HET 114</td>
<td>Power Trains</td>
<td>5.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 128</td>
<td>Medium/Heavy Duty Tune Up</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

### Diesel and Heavy Equipment Technology Certificate Specialization in Suspension and Alignment Systems (C60460-C8)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRN 110</td>
<td>Introduction to Transport Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 125</td>
<td>Preventive Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>TRN 170</td>
<td>Pc Skills for Transportation</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 126</td>
<td>Preventive Maintenance Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 230</td>
<td>Air Brakes</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 231</td>
<td>Medium/Heavy Duty Brake Systems</td>
<td>2.0</td>
</tr>
<tr>
<td>HET 232</td>
<td>Medium/Heavy Duty Brake Systems Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HET 233</td>
<td>Suspension and Steering</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Credits**: 16

### Early Childhood Education

The Early Childhood Education curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Coursework includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language,
physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs and school-age programs.

**Early Childhood Education (A55220)**

**Degree Awarded**

The Associate in Applied Science degree in Early Childhood Education is awarded by the College upon completion of this program.

**Admissions**

1. A high school diploma or equivalent is required.
2. Complete admissions form and placement tests.
3. Meet with a college counselor for interpretation of placement scores, declare program goals/major and receive the name of the assigned Early Childhood faculty advisor.
4. Meet with your Early Childhood faculty advisor.

**Program Accreditation**

All Early Childhood courses may be applied for training/education hours required by the North Carolina Division of Child Development. Courses are offered for North Carolina Early Childhood, School-Age, Infant & Toddler Care, Career and College Promise and Administrative Credentials.

Four-Year Articulation Agreements—CPCC has an articulation agreement with UNC-Charlotte which allows students to transfer to UNC-C. Students planning to transfer to UNC-C should take PSY 150, Introduction to Psychology and a Science Course with a Lab (4 SHC). This agreement allows students to complete a B.A. in Child and Family Development and the Birth-Kindergarten teaching license at UNC-Charlotte in four to five additional semesters. Students interested in transferring to other higher education institutions should contact the admissions counselor at that individual school.

Beginning August 2013, CPCC graduates who have earned an associate of applied science degree in Early Childhood Education will be eligible to enroll in the Bachelor of Arts in Education (B.A.E.) degree through the Department of Teacher Education of Catawba College. This articulation agreement allows students to complete a B.A. in three to four semesters. Catawba College offers two concentrations in the B-K Education major: the Licensure concentration and the Non-Licensure concentration.

**General Course Information**

1. Many courses have prerequisites or co-requisites; check the Courses section of this catalog for details.
2. Students must successfully pass ENG 080 and RED 080 or ENG 085 or place out of those courses to take 100 level EDU courses with the exception of EDU 119.
3. Students must successfully pass ENG 090 and RED 090 or ENG 095 or place out of those courses to register for 200 level EDU courses.
4. Courses with a lab must register for the lab course as well as the lecture section. Ex. EDU 280 Language and Literacy Experiences and EDU 280A Language and Literacy Lab.
5. Students must have faculty permission to register for EDU 184 and EDU 284.

**Contact Information**

The Early Childhood Education program is in the Nursing, Human Services and Early Childhood Education Division. For more information, check the Early Childhood webpage at www.cpcc.edu/ec or call 704.330.4762.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>or MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 119</td>
<td>Introduction to Early Childhood Education</td>
<td>4.0</td>
</tr>
</tbody>
</table>
EDU 131  Child, Family, and Community  3.0
EDU 146  Child Guidance  3.0
EDU 151  Creative Activities  3.0
EDU 153  Health, Safety and Nutrition  3.0
EDU 221  Children With Exceptionalities  3.0
EDU 271  Educational Technology  3.0
EDU 280  Language and Literacy Experiences  3.0
EDU 284  Early Childhood Capstone Practicum  4.0
EDU 144  Child Development I  3.0
EDU 145  Child Development II  3.0
EDU 251  Exploration Activities  3.0
EDU 251A  Exploration Activities Lab  1.0
EDU 280A  Literacy Experiences Lab  1.0
EDU 259  Curriculum Planning  3.0
EDU 151A  Creative Activities Lab  1.0
EDU 184  Early Childhood Introductory Practicum  2.0
EDU 234  Infants, Toddlers, & Twos  3.0
Total Credits  67

Early Childhood Education Certificate with a Specialization in Administration (C55220-C2)

Major Requirements
EDU 131  Child, Family, and Community  3.0
EDU 145  Child Development II  3.0
EDU 146  Child Guidance  3.0
EDU 261  Early Childhood Administration I  3.0
EDU 262  Early Childhood Administration II  3.0
EDU 153  Health, Safety and Nutrition  3.0
Total Credits  18

Back to Top

Early Childhood Education Certificate Specialization in Beginnings in Early Childhood Education (For High School Juniors and Seniors Only) (C55220-C4)

Major Requirements
EDU 119  Introduction to Early Childhood Education  4.0
EDU 144  Child Development I  3.0
EDU 146  Child Guidance  3.0
EDU 153  Health, Safety and Nutrition  3.0
Total Credits  13

Back to Top

School-Age Care Certificate (C55450)

Major Requirements
EDU 131  Child, Family, and Community  3.0
EDU 158  Healthy Lifestyles-Youth  3.0
EDU 235  School-Age Development and Programs  3.0
EDU 263  School-Age Program Administration  2.0
EDU 146  Child Guidance  3.0
EDU 145  Child Development II  3.0
Total Credits  17

Back to Top

Infant/Toddler Care Certificate (C55290)

Major Requirements
EDU 119  Introduction to Early Childhood Education  4.0
EDU 144  Child Development I  3.0
EDU 131  Child, Family, and Community  3.0
EDU 153  Health, Safety and Nutrition  3.0

No diplomas offered.

• Early Childhood Education Certificate with a Specialization in Early Childhood (C55220-C1)
• Early Childhood Education Certificate with a Specialization in Administration (C55220-C2)
• Early Childhood Education Certificate Specialization in Beginnings in Early Childhood Education (For High School Juniors and Seniors Only) (C55220-C4)

• School-Age Care Certificate (C55450)
• Infant/Toddler Care Certificate (C55290)
Electrical Engineering Technology (A40180)

Degree Awarded
The Associate in Applied Science Degree - Electrical Engineering Technology is awarded by the College upon completion of any of the program tracks.

Note
Students in the Electrical Engineering Technology (A40180) program desiring to earn an additional degree in Computer Engineering Technology (A40160), or Electronics Engineering Technology (A40200), or an additional track under Electrical Engineering Technology (A40180) must meet the specified course requirements.

Admissions
- A high school diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge. A counseling/orientation appointment follows placement testing.
- Many courses require prerequisites or co-requisites; check the Courses section for details.

Program Accreditation
The Electrical Engineering Technology program at CPCC is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (TAC of ABET), http://www.abet.org.

Notes
The Electrical Engineering Technology program provides a basic background in the practical application of both fundamental and specialized electrical and electronic principles. Courses are designed to present technical content in an order that provides students with progressive levels of job-related knowledge and skills. There are fundamental electrical and electronic courses and concentrated study in various fields of the electrical industry, including industrial controls, electrical machines and programmable logic controllers and automated manufacturing systems.

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses. Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Contact Information
The Electrical Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpcc.edu/et or call the Program Chair at 704.330.6479.
# General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Select one of the following:</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td><strong>Select one of the following:</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td><strong>Select 3 credits of the following:</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td><strong>Select 3 credits of the following:</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td><strong>Select 3 credits of the following:</strong></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
</tbody>
</table>

# Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

# Major Tracks

## Automation Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 136</td>
<td>Electrical Machines II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 133</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 137</td>
<td>Electr Devices &amp; Circuits</td>
<td>5.0</td>
</tr>
</tbody>
</table>

## Power Systems Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 213</td>
<td>Instrumentation</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 170</td>
<td>DAQ and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>or PHY 151</td>
<td>College Physics I</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 74
College-Level Programs

ELN 237  Local Area Networks  3.0
CSC 139  Visual BASIC Programming  3.0
PCI 173  Programmable Systems  4.0
ELC 231  Electric Power Systems  4.0
ELC 233  Energy Management  3.0
ELN 275  Troubleshooting  2.0
PHY 131  Physics-Mechanics  4.0
or PHY 151  College Physics I  
Total Credits 35

Electrical Design
MAT 223  Applied Calculus  3.0
ELN 237  Local Area Networks  3.0
ELN 150  Computer-Aided Drafting for Electronics  2.0
ELC 231  Electric Power Systems  4.0
ELC 234  Electrical System Design  3.0
DFT 151  CAD I  3.0
DFT 152  CAD II  3.0
DFT 153  CAD III  3.0
ELC 213  Instrumentation  4.0
MAT 122  Algebra/Trigonometry II  3.0
PHY 131  Physics-Mechanics  4.0
or PHY 151  College Physics I  
Total Credits 45

Automation Track
MAT 122  Algebra/Trigonometry II  3.0
ELN 260  Prog Logic Controllers  4.0
ELN 237  Local Area Networks  3.0
PCI 173  Programmable Systems  4.0
ELC 213  Instrumentation  4.0
PCI 170  DAQ and Control  4.0
or COE 112  Co-Op Work Experience I  
& COE 122  and Co-Op Work Experience II  
Total Credits 45

Electrical Engineering Technology Diplomas (D40180)

Automation (D40180-D1)
The Automation Diploma focuses on the knowledge and skills associated with the installation, maintenance, integration and troubleshooting of automated systems. Coursework includes control equipment such as PLCs, PAs, networking, electrical machines such as transformers, generators, AC, DC, stepper and servo motors, variable frequency drives and data acquisition using LabView. Credits from this diploma can be applied toward requirements for Associate of Applied Science Degree in Electrical Engineering Technology.

Diploma Awarded
A diploma in Automation is awarded by the College upon completion of this program.

General Education Requirements
ENG 111  Expository Writing  3.0
MAT 121  Algebra/Trigonometry I  3.0

Major Requirements
ELC 135  Electrical Machines  3.0
ELC 136  Electrical Machines II  4.0
ELN 133  Digital Electronics  4.0
ELC 138  DC Circuit Analysis  3.0
ELC 139  AC Circuit Analysis  3.0

Electrical Design
ELN 237  Local Area Networks  3.0
ELC 231  Electric Power Systems  4.0
ELC 234  Electrical System Design  3.0
DFT 151  CAD I  3.0
DFT 152  CAD II  3.0
DFT 153  CAD III  3.0
ELC 213  Instrumentation  4.0
or COE 112  Co-Op Work Experience I  
& COE 122  and Co-Op Work Experience II  
Total Credits 46

Electrical Design (D40180-D3)
The Electrical Design Diploma focuses on the knowledge and skills associated with electrical system design using computer-aided drafting software packages.

Coursework includes 2D and 3D CAD software, networking, electrical machines such as transformers, generators, AC, DC, stepper and servo motors, variable frequency drives and the generation and distribution of electrical power. Credits from this diploma can be applied toward requirements for the Associate of Applied Science in Electrical Engineering Technology.

Diploma Awarded
A diploma in Electrical Design is awarded by the College upon completion of this program.

General Education Requirements
ENG 111  Expository Writing  3.0
MAT 121  Algebra/Trigonometry I  3.0

Major Requirements
ELC 135  Electrical Machines  3.0
ELC 136  Electrical Machines II  4.0
ELN 133  Digital Electronics  4.0
ELC 138  DC Circuit Analysis  3.0
ELC 139  AC Circuit Analysis  3.0

Electrical Design
ELN 237  Local Area Networks  3.0
ELC 231  Electric Power Systems  4.0
ELC 234  Electrical System Design  3.0
DFT 151  CAD I  3.0
DFT 152  CAD II  3.0
DFT 153  CAD III  3.0
ELC 213  Instrumentation  4.0
Total Credits 46
Power Systems and Alternative Energy (D40180-D2)

The Power Systems and Alternative Energy Diploma focuses on the knowledge and skills associated with the generation, management and distribution of electrical power. Coursework includes control equipment such as PLCs, networking, electrical machines such as transformers, generators, AC, DC, stepper and servo motors, variable frequency drives and the generation, distribution and management of electrical power. Credits from this diploma can be applied toward requirements for Associate of Applied Science Degree in Electrical Engineering Technology.

Diploma Awarded

A diploma in Power Systems and Alternative Energy is awarded by the College upon completion of this program.

Admissions

- A high school diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge. A counseling/orientation appointment follows placement testing.
- Many courses require prerequisites or co-requisites; check the Courses section for details.

Contact Information

The Electrical Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpcc.edu/et or call the Engineering Division at 704.330.6860.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 136</td>
<td>Electrical Machines II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Power Systems Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 260</td>
<td>Prog Logic Controllers</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 237</td>
<td>Local Area Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>PCI 173</td>
<td>Programmable Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 231</td>
<td>Electric Power Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 233</td>
<td>Energy Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELN 275</td>
<td>Troubleshooting</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>46</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Engineering Technology Certificates (C40180)

Electrical Engineering Technology with a Specialization in Integrated Systems Technology (C40180-C4)

This certificate is designed for students in the following situations:

- interested in pursuing the Computer, Electrical, Electronics and/or Mechanical Engineering Technology programs, but must first complete developmental mathematics courses before entering the program curriculum
- pursuing other programs, but wish to gain basic knowledge and skills in electromechanical systems
- working in industry and want to gain, or enhance skills, in electrical, pneumatic and hydraulic systems
- uncertain which programs, or fields, to pursue, but enjoy working with their hands and interested in technology

Admissions

A high school diploma or equivalent is required. Courses may require prerequisites or co-requisites; check the Courses section for details.

Contact Information

The Electrical Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpcc.edu/et or call the Engineering Technology Division at 704.330.6860.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>HYD 110</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 260</td>
<td>Prog Logic Controllers</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

Electrical Engineering Technology with a Specialization in Electrical Engineering Technology Pathway(C40180-C5)

This certificate is also available to students enrolled in Career and College Promise.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 137</td>
<td>Electr Devices &amp; Circuits</td>
<td>5.0</td>
</tr>
</tbody>
</table>
Electrical Systems Technology

This curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities. Coursework, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, applications of the National Electric Code and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical systems.

Electrical Systems Technology (A35130)

Degree Awarded

The Associate in Applied Science Degree – Electrical Systems Technology is awarded by the College upon completion of this program.

Admissions

Completion of the high school diploma or equivalent is required. Many courses have prerequisites or co-requisites; check the Course Descriptions section for details.

Contact Information

The Electrical Systems Technology program is in the Construction Technologies Division. For more information, call 704.330.4452 or 704.330.4408.

General Education Requirements

ENG 111 Expository Writing 3.0
Select one of the following: 3.0
  ENG 112 Argument-Based Research
  ENG 113 Literature-Based Research
  ENG 114 Professional Research & Reporting
Select one of the following: 3.0
  COM 110 Introduction to Communication
  COM 120 Intro to Interpersonal Communication
  COM 231 Public Speaking
Select one of the following: 3.0
  MAT 115 Mathematical Models
  MAT 121 Algebra/Trigonometry I
  MAT 122 Algebra/Trigonometry II
  MAT 140 Survey of Mathematics
  MAT 155 Statistical Analysis
  MAT 161 College Algebra
  MAT 171 Precalculus Algebra
  MAT 172 Precalculus Trigonometry
  MAT 175 Precalculus
  MAT 223 Applied Calculus
  MAT 263 Brief Calculus
  MAT 271 Calculus I
  MAT 272 Calculus II

Select one of the following: 3.0
  ART 111 Art Appreciation
  ART 114 Art History Survey I
  ART 115 Art History Survey II
  ART 116 Survey of American Art
  ART 117 Non-Western Art History
  DAN 110 Dance Appreciation
  DAN 211 Dance History I
  DAN 212 Dance History II
  DRA 111 Theatre Appreciation
  DRA 112 Literature of the Theatre
  DRA 122 Oral Interpretation
  ENG 231 American Literature I
  ENG 232 American Literature II
  ENG 241 British Literature I
  ENG 242 British Literature II
  ENG 251 Western World Literature I
  ENG 252 Western World Literature II
  HUM 130 Myth in Human Culture
  HUM 160 Introduction to Film
  HUM 211 Humanities I
  HUM 212 Humanities II
  MUS 110 Music Appreciation
  MUS 112 Introduction to Jazz
  MUS 210 History of Rock Music
  MUS 213 Opera and Musical Theatre
  PHI 215 Philosophical Issues
  PHI 220 Western Philosophy I
  PHI 221
  PHI 230 Introduction to Logic
  PHI 240 Introduction to Ethics
  REL 110 World Religions
  REL 111 Eastern Religions
  REL 112 Western Religions
  REL 211 Introduction to Old Testament
  REL 212 Introduction to New Testament
  REL 221 Religion in America
Select one of the following: 3.0
  ANT 210 General Anthropology
  ANT 220 Cultural Anthropology
  ANT 221 Comparative Cultures
  ECO 151 Survey of Economics
  ECO 251 Principles of Microeconomics
  ECO 252 Principles of Macroeconomics
  GEO 111 World Regional Geography
  HIS 111 World Civilizations I
  HIS 112 World Civilizations II
  HIS 131 American History I
  HIS 132 American History II
  POL 110 Introduction to Political Science
  POL 120 American Government
Central Piedmont Community College

Electrical Systems Technology Diploma (D35130)

The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities. Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical systems field as an on-the-job trainee or apprentice, assisting in the layout, installation and maintenance of electrical/electronic systems.

Diploma Awarded
A diploma in Electrical Systems Technology is awarded by the College upon completion of this program.

Admissions
Completion of the high school diploma or equivalent is required as the foundation of a career in this area. Many courses have prerequisites or corequisites; check the Course Descriptions section for details.

Contact Information
The Electrical Systems Technology program is in the Construction Technologies Division. For more information, call 704.330.4452 or 704.330.4408.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 117</td>
<td>Motors and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 128</td>
<td>Introduction to Programmable Logic Controller</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 118</td>
<td>National Electrical Code</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 119</td>
<td>NEC Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 121</td>
<td>Electrical Estimating</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 125</td>
<td>Diagrams and Schematics</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 229</td>
<td>Applications Project</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 233</td>
<td>Energy Management</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 151</td>
<td>CAD I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
<tr>
<td>Select 3.0 credits from the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>WOL 110</td>
<td>Basic Construction Skills</td>
<td></td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td></td>
</tr>
<tr>
<td>EUS 110</td>
<td>Introduction to Electric Utility Industry</td>
<td></td>
</tr>
<tr>
<td>ALT 120</td>
<td>Renewable Energy Technologies</td>
<td></td>
</tr>
</tbody>
</table>

Major Tracks

Complete one of two tracks (See below) 13.0

Total Credits 72

Solar Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 130</td>
<td>Advanced Motors and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 220</td>
<td>Photovoltaic System Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 221</td>
<td>Advanced Photovoltaic System Designs</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 228</td>
<td>Programmable Logic Controllers Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits 13

Design Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 115</td>
<td>Industrial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 215</td>
<td>Electrical Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 234</td>
<td>Electrical System Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

BPR 130 Print Reading-Construction 3.0

Total Credits 13
College-Level Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 119</td>
<td>NEC Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 121</td>
<td>Electrical Estimating</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 125</td>
<td>Diagrams and Schematics</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 229</td>
<td>Applications Project</td>
<td>2.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
<tr>
<td>WOL 110</td>
<td>Basic Construction Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 110</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>EUS 110</td>
<td>Introduction to Electric Utility Industry</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

Electrical Systems Technology Certificates (C35130)

The certificates listed below can be earned in the Electrical Systems Technology (A35130) program.

Admissions

Completion of a high school diploma or equivalent is required as the foundation of a career in this area. Many courses have prerequisites or co-requisites; check the Course Descriptions section for details.

Contact Information

The Electrical Systems Technology program is in the Construction Technologies Division. For more information, call 704.330.4452 or 704.330.4408.

Electrical Systems Technology Certificate Specialization in Electrical Installation and Maintenance Commercial (C35130-C1)

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 118</td>
<td>National Electrical Code</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 119</td>
<td>NEC Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 115</td>
<td>Industrial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Electrical Installation and Maintenance Control Wiring (C35130-C2)

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 117</td>
<td>Motors and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 128</td>
<td>Introduction to Programmable Logic Controller</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 118</td>
<td>National Electrical Code</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 125</td>
<td>Diagrams and Schematics</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 228</td>
<td>Programmable Logic Controllers Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Back to Top
Electrical Systems Technology Certificate Specialization in Electrical Installation and Maintenance Residential (C35130-C3)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 118</td>
<td>National Electrical Code</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 119</td>
<td>NEC Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Electrical Installation and Maintenance Industrial (C35130-C4)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 117</td>
<td>Motors and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 128</td>
<td>Introduction to Programmable Logic Controller</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 115</td>
<td>Industrial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 215</td>
<td>Electrical Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Installation and Maintenance Construction Wiring (C35130-C6)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 115</td>
<td>Industrial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Installation and Maintenance (C35130-C7)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 215</td>
<td>Electrical Maintenance</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Electrical Installation and Maintenance (C35130-C8)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Fast Track Residential (C35130-C9)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td>5.0</td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 229</td>
<td>Applications Project</td>
<td>2.0</td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

Back to Top

Electrical Systems Technology Certificate Specialization in Applied Electrical Technology Residential and Commercial (C35130-10)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 114</td>
<td>Commercial Wiring</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

Back to Top
## Electrical Systems Technology Certificate
### Specialization in Applied Electrical Technology Electrical Design (C35130-11)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 118 National Electrical Code</td>
</tr>
<tr>
<td>ELC 119 NEC Calculations</td>
</tr>
<tr>
<td>ELC 113 Residential Wiring</td>
</tr>
<tr>
<td>ELC 114 Commercial Wiring</td>
</tr>
<tr>
<td>ELC 234 Electrical System Design</td>
</tr>
<tr>
<td>BPR 130 Print Reading-Construction</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

### Specialization in Applied Electrical Technology Physical Design II (C35130-14)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 119 NEC Calculations</td>
</tr>
<tr>
<td>ELC 115 Industrial Wiring</td>
</tr>
<tr>
<td>ELC 121 Electrical Estimating</td>
</tr>
<tr>
<td>ENG 111 Expository Writing</td>
</tr>
<tr>
<td>DFT 152 CAD II</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

### Specialization in Applied Electrical Technology Physical Design III (C35130-15)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPR 130 Print Reading-Construction</td>
</tr>
<tr>
<td>ELC 234 Electrical System Design</td>
</tr>
<tr>
<td>COE 112 Co-Op Work Experience I</td>
</tr>
<tr>
<td>COM 110 Introduction to Communication</td>
</tr>
<tr>
<td>DFT 153 CAD III</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

### Specialization in Facilities Maintenance (C35130-16)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHR 110 Introduction to Refrigeration</td>
</tr>
<tr>
<td>AHR 115 Refrigeration Systems</td>
</tr>
<tr>
<td>BPR 130 Print Reading-Construction</td>
</tr>
<tr>
<td>ELC 115 Industrial Wiring</td>
</tr>
<tr>
<td>ELC 117 Motors and Controls</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>

### Specialization in Intro to Energy Production (C35130-17)

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115 Mathematical Models</td>
</tr>
<tr>
<td>ELC 114 Commercial Wiring</td>
</tr>
<tr>
<td>ELC 118 National Electrical Code</td>
</tr>
<tr>
<td>DFT 151 CAD I</td>
</tr>
<tr>
<td>CIS 111 Basic PC Literacy</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
</tr>
</tbody>
</table>
Electronics Engineering Technology

The Electronic Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair and modify developmental and production electronic components, equipment and systems such as industrial/computer controls, manufacturing systems, instrumentation systems, communication systems and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student ability to analyze and troubleshoot electronic systems.

In the second year, students have the option to choose one of two tracks: Instrumentation & Control or Communications. The tracks are designed to guide students to curriculum paths that cover the appropriate knowledge and skills.

Instrumentation & Control Track

This track focuses on the knowledge and skills associated with the installation, maintenance, integration and troubleshooting of instrumentation and control systems. Course work includes setup, calibration and maintenance of instrumentation devices, P&IDs, PLCs, PACs, networking, Visual Basic programming, HMIs, DCS configuration, process control loop tuning and data acquisition using LabView.

Communications Track

This track focuses on the knowledge and skills associated with microprocessors, communication systems, networking, C++ programming, laser and fiber optics, system troubleshooting and data acquisition using LabView.

Note

The A.A.S. degree in Electronics Engineering Technology is accepted at some colleges and universities as the first two years of a 2+2 bachelor’s-level engineering technology program. These students are advised to complete a second Physics class (PHY 132 or PHY 152) to ensure they are not considered deficient with credit hours in physics.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, communications technician, electronic tester, electronic systems integrator, electronics and instrumentation technician, control technician, bench technician and production control technician.

Electronics Engineering Technology (A40200)

Degree Awarded

The Associate in Applied Science degree - Electronics Engineering Technology is awarded by the College upon completion of any of the program tracks.

Note

Students in the Electronics Engineering Technology (A40200) program desiring to earn an additional degree in Computer Engineering Technology (A40160), or Electrical Engineering Technology (A40180), or an additional track under Electronics Engineering Technology (A40200) must meet the specified course requirements.

Admissions

- A high school diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
- CPCC placement tests are required in English and mathematics. Advancement Studies in mathematics and English courses are available for students to build basic skills and knowledge. A counseling/orientation appointment follows placement testing.
- Many courses require prerequisites or co-requisites; check the Courses section for details.

Program Accreditation

The Electronics Engineering Technology program at CPCC is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (TAC of ABET), http://www.abet.org.

Note

The Computer/Electrical/Electronics Engineering Technology laboratories are staffed during day and evening hours so that students may devote as much time as possible to laboratory assignments. These modern facilities include adequate equipment to support practical laboratory activity in all courses. Students who do not take program-related courses for two consecutive semesters must re-enter the program under the Catalog in effect as the time of re-entry.

Contact Information

The Electronics Engineering Technology program is in the Engineering Technology Division. For additional information, visit www.cpc.edu/et or call the Engineering Division at 704.330.6860.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 17
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td><strong>Major Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELN 133</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 137</td>
<td>Electr Devices &amp; Circuits</td>
<td>5.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PCI 162</td>
<td>Instrumentation Controls</td>
<td></td>
</tr>
<tr>
<td>ELN 232</td>
<td>Introduction to Microprocessors</td>
<td></td>
</tr>
<tr>
<td>ELN 234</td>
<td>Communication Systems</td>
<td></td>
</tr>
<tr>
<td><strong>Major Track</strong></td>
<td>Complete one of two major tracks (See below)</td>
<td>29.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>68</td>
</tr>
</tbody>
</table>

**Major Tracks**

**Instrumental and Control Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELN 237</td>
<td>Local Area Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 150</td>
<td>Computer-Aided Drafting for Electronics</td>
<td>2.0</td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 213</td>
<td>Instrumentation</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 260</td>
<td>Prog Logic Controllers</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 173</td>
<td>Programmable Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 172</td>
<td>SCADA Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 170</td>
<td>DAQ and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>CSC 139</td>
<td>Visual BASIC Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>or CSC 134</td>
<td>C++ Programming</td>
<td></td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>or PHY 151</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>35</td>
</tr>
</tbody>
</table>

**Communications Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELN 237</td>
<td>Local Area Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 150</td>
<td>Computer-Aided Drafting for Electronics</td>
<td>2.0</td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 236</td>
<td>Fiber Optics and Lasers</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 234</td>
<td>Communication Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 170</td>
<td>DAQ and Control</td>
<td>4.0</td>
</tr>
</tbody>
</table>

152
**Electronics Engineering Technology Diplomas (D40200)**

### Instrumentation & Control (D40200-D1)

The Instrumentation & Control Diploma focuses on the knowledge and skills associated with the installation, maintenance, integration and troubleshooting of instrumentation and control systems. Coursework includes setup, calibration and maintenance of instrumentation devices, P&IDs, PLCs, PACs, networking, Visual Basic programming, HMIs, DCS configuration, process control loop tuning and data acquisition using LabView. Credits from this diploma can be applied toward requirements for Associate of Applied Science Degree in Electronics Engineering Technology.

**Diploma Awarded**

A diploma in Instrumentation & Control is awarded by the College upon completion of this program.

#### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
</tbody>
</table>

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELN 133</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>PCI 162</td>
<td>Instrumentation Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 237</td>
<td>Local Area Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 213</td>
<td>Instrumentation</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 260</td>
<td>Prog Logic Controllers</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 173</td>
<td>Programmable Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 172</td>
<td>SCADA Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 170</td>
<td>DAQ and Control</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Credits**

45

### Communications Systems (D40200-D2)

The Communications Diploma focuses on the knowledge and skills associated with microprocessors, communication systems, networking, C++ programming, laser and fiber optics, system troubleshooting and data acquisition using LabView. Credits from this diploma can be applied toward requirements for Associate of Applied Science Degree in Electronics Engineering Technology.

**Diploma Awarded**

A diploma in Communications is awarded by the College upon completion of this program.

#### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
</tbody>
</table>

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELN 133</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 138</td>
<td>DC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 139</td>
<td>AC Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 232</td>
<td>Introduction to Microprocessors</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 237</td>
<td>Local Area Networks</td>
<td>3.0</td>
</tr>
<tr>
<td>ELN 236</td>
<td>Fiber Optics and Lasers</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 234</td>
<td>Communication Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PCI 170</td>
<td>DAQ and Control</td>
<td>4.0</td>
</tr>
<tr>
<td>ELN 275</td>
<td>Troubleshooting</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits**

40

No certificates offered.

### Fire Protection Technology

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions...
regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law and code.

Graduates should qualify for employment in governmental agencies, industrial firms, insurance rating organizations, educational organizations and municipal fire departments. Employed persons should have opportunities for skilled and supervisory level positions within their current organizations.

Fire Protection Technology (A55240)

Degree Awarded

The Associate in Applied Science degree - Fire Protection Technology is awarded by the College upon completion of the program.

Admissions

• A high school diploma or equivalent is required.
• Placement tests are required for admission to particular courses.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Notes

• A minimum grade of “C” is required in all FIP prefix courses for successful completion of the program.
• Students may obtain a suggested course sequence list from the program chair.
• It is recommended that students meet with a Fire Protection Program faculty advisor prior to initial registration.

Contact Information

The Fire Protection Technology program is a part of the Public Safety Division. For more information, call 704.330.4619.

General Education Requirements

ENG 111 Expository Writing 3.0
PSY 150 General Psychology 3.0
ENG 113 Literature-Based Research or ENG 114 Professional Research & Reporting 3.0
COM 110 Introduction to Communication or COM 231 Public Speaking 3.0
MAT 140 Survey of Mathematics or MAT 161 College Algebra 3.0
Select 3 credits of the following: 3.0
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 117 Non-Western Art History
DAN 110 Dance Appreciation
DAN 211 Dance History I

Major Requirements

FIP 120 Introduction to Fire Protection 3.0
FIP 124 Fire Prevention & Public Education 3.0
FIP 128 Detection & Investigation 3.0
FIP 132 Building Construction 3.0
FIP 220 Fire Fighting Strategies 3.0
CIS 111 Basic PC Literacy or CIS 110 Introduction to Computers 2.0
Select 4 credits of the following: 4.0
FIP 230 Chemistry of Hazardous Materials I
CHM 151 General Chemistry I
PHY 151 College Physics I
Select 4 credits of the following: 4.0
FIP 231 Chemistry of Hazardous Materials II
CHM 152 General Chemistry II
PHY 152 College Physics II

Major Electives

Select 28 credits of the following: 28.0
FIP 136 Inspections & Codes
FIP 144 Sprinklers & Automatic Alarms
FIP 148 Fixed & Portable Extinguishing Systems
FIP 221 Advanced Fire Fighting Strategies
FIP 224 Fire Instructor I & II
FIP 232 Hydraulics & Water Distribution
FIP 236 Emergency Management
FIP 240 Fire Service Supervision
FIP 248 Fire Service Personnel Administration

DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America
MUS 210 History of Rock Music

DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America
MUS 210 History of Rock Music

DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America
MUS 210 History of Rock Music
Foodservice Technology

This curriculum is designed to introduce students to the foodservice industry and prepare them for entry-level positions in industrial, institutional, or commercial production foodservice operations. Courses include sanitation, basic and intermediate foodservice production skills, baking, menus, purchasing and basic cost control. Graduates should qualify for employment as line cooks, prep cooks, or bakers in production foodservice settings or entry-level kitchen management in an institutional foodservice setting.

No degrees offered.

Foodservice Technology Diploma (D55250)

Diploma Awarded
A diploma in Foodservice Technology is awarded by the College upon completion of this program.

Admissions
- Complete a CPCC Admissions Form.
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM and FST prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see a Culinary Arts Program Chair – Jeff LaBarge, 704.330.6301 or Jim Bowen, 704.330.6770.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.
- Students must have an FST program code.

Notes
- Students entering this program should take the courses in bold print first.
- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM and FST prefixes.
- All CUL lab classes require student accident medical insurance.

Contact Information
The Foodservice Technology program is in the Hospitality Education Division. For more information, call 704.330.6301 or 704.330.6770.

General Education Requirements
ENG 111 Expository Writing 3.0
COM 110 Introduction to Communication 3.0

Major Requirements
HRM 110 Introduction to Hospitality and Tourism 3.0
CUL 110 Sanitation and Safety 2.0
CUL 140 Culinary Skills I 5.0
CUL 170 Garde Manger I 3.0
CUL 240 Culinary Skills II 5.0
CUL 160 Baking I 3.0
CUL 260 Baking II 3.0
FST 108 Purchasing and Cost Control 3.0
CUL 130 Menu Design 2.0
CUL 111 Success in Hospitality Studies 1.0
CUL 140A Culinary Skills I Lab 1.0
CUL 170A Garde Manger I Lab 1.0
CUL 230 Global Cuisines 5.0
CUL 230A Global Cuisines Lab 1.0
CUL 240A Culinary Skills II Lab 1.0
CUL 160A Baking I Lab 1.0
CUL 260A Baking II Lab 1.0

Food Protection Technology Certificate Specialization in Fire Management (C55240-C1)

Major Requirements
FIP 236 Emergency Management 3.0
FIP 240 Fire Service Supervision 3.0
FIP 248 Fire Service Personnel Administration 3.0
FIP 256 Municipal Public Relations 3.0
Total Credits 12

Fire Protection Technology Certificate Specialization in Basics in Fire Protection (C55240-C2)

This certificate is also available to students enrolled in Career & College Promise.

Major Requirements
FIP 120 Introduction to Fire Protection 3.0
FIP 124 Fire Prevention & Public Education 3.0
FIP 128 Detection & Investigation 3.0
FIP 220 Fire Fighting Strategies 3.0
FIP 140 Industrial Fire Protection 3.0
Total Credits 15

Food Protection Technology Certificate Specialization in Fire Management

Central Piedmont Community College
Geomatics Technology

The Geomatics Technology curriculum provides training for technicians in the many areas of geomatics and surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems and other areas of property description and measurements.

Coursework includes the communication and computational skills required for boundary, construction, route and control surveying, photogrammetry, topography, drainage, surveying law and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Professional Land Surveyor in North Carolina.

Geomatics Technology (A40420)

Degree Awarded

The Associate in Applied Science Degree - Geomatics Technology will be awarded by the College upon completion of this program.

Admissions

- A high school diploma or equivalent is required.
- CPCC placement tests are required in English and Mathematics. Developmental classes in English and Mathematics courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students should see a Faculty Advisor before registration.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Note

Students who do not take program-related courses for a one year period must reenter the program under the Catalog in effect at the time of reentry.

Contact Information

The Geomatics Technology program is in the Engineering Technology Division. For more information, call Fred Gore at 704.330.6895, or visit our website at www.cpcc.edu/et.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
<tr>
<td>REL 112</td>
<td>Western Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
</tbody>
</table>

No certificates offered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEG 115</td>
<td>Intro to Tech &amp; Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 211</td>
<td>Hydrology &amp; Erosion Control</td>
<td>3.0</td>
</tr>
<tr>
<td>CEG 151</td>
<td>Cad for Engineering Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 111</td>
<td>Surveying II</td>
<td>4.0</td>
</tr>
<tr>
<td>SRV 210</td>
<td>Surveying III</td>
<td>4.0</td>
</tr>
<tr>
<td>SRV 220</td>
<td>Surveying Law</td>
<td>3.0</td>
</tr>
<tr>
<td>CEG 230</td>
<td>Subdivision Planning &amp; Design</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 240</td>
<td>Topo/Site Surveying</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 111</td>
<td>Introduction to Gis and Gnss</td>
<td>4.0</td>
</tr>
<tr>
<td>or GIS 111</td>
<td>Introduction to GIS &amp; GIS 112</td>
<td></td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Geomatics Tracks**

**Land Survey Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRV 250</td>
<td>Advanced Surveying</td>
<td>4.0</td>
</tr>
<tr>
<td>SRV 260</td>
<td>Field &amp; Office Practices</td>
<td>2.0</td>
</tr>
<tr>
<td>CIV 125</td>
<td>Civil/Surveying CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geodesy</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Total Credits** 14

**Civil Engineering Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 250</td>
<td>Statics/Strength of Mater</td>
<td>5.0</td>
</tr>
<tr>
<td>CIV 111</td>
<td>Soils and Foundations</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 212</td>
<td>Introduction to Environmental Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>CIV 125</td>
<td>Civil/Surveying CAD</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits** 15

**Geospatial Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 120</td>
<td>Introduction to Geodesy</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 246</td>
<td>Principles of Property Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 250</td>
<td>Advanced Surveying</td>
<td>4.0</td>
</tr>
<tr>
<td>GIS 125</td>
<td>CAD for GIS</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits** 13

No diplomas offered.

- Geomatics Technology Certificate with a Specialization in Geomatics Fundamentals (C40420-C1)
- Geomatics Technology Certificate with a Specialization in Route Surveying (C40420-C2)
- Geomatics Technology Certificate with a Specialization in Boundary Surveying (C40420-C3)
- Geomatics Technology Certificate with a Specialization in Land Development (C40420-C4)
- Geomatics Technology Certificate Specialization in Mapping (C40420-C5)
- Geomatics Technology Certificate Specialization in Geomatics Technology Pathway (C40420-C6)

**Geomatics Technology Certificates (C40420)**

**Geomatics Technology Certificate with a Specialization in Geomatics Fundamentals (C40420-C1)**

This certificate prepares individuals for entry-level positions in surveying, as well as provides survey technicians with basic knowledge that supports the Survey Technician Certification Program sponsored by the National Society of Professional Surveyors and the American Congress on Surveying and Mapping (NSPS-ACSM). Course work includes fundamental mathematics, computer fundamentals, principles of surveying and CAD drafting. Course work will apply toward the Associate in Applied Science Geomatics Technology degree or the Associate in Applied Science Civil Engineering Technology degree.

**Certificate Awarded**

A certificate is awarded in Geomatics Fundamentals upon completion of this program.

**Admissions**

- Completion of a high school diploma or equivalent is required.
- CPCC placement test is required in mathematics. Developmental courses are available for students to build basic skills and knowledge.
- Many courses have prerequisites; check the Courses section of the catalog for details.

**General Education Requirements**

| MAT 121 | Algebra/Trigonometry I | 3.0 |

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEG 115</td>
<td>Intro to Tech &amp; Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>CEG 111</td>
<td>Introduction to Gis and Gnss</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 151</td>
<td>Cad for Engineering Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Credits** 17

Back to Top
Geomatics Technology Certificate with a Specialization in Route Surveying (C40420-C2)

This certificate prepares individuals for entry-level positions in route surveying. Course work includes fundamental mathematics, principles of surveying, fundamentals of route surveying, field practices and procedures associated with roadway, pipeline, transmission line and similar linear layouts and CAD drafting. Course work will apply toward the Associates in Applied Science Geomatics Technology or the Associate in Applied Science Civil Engineering Technology degrees.

Certificate Awarded
A certificate is awarded in Route Surveying upon completion of this program.

Admissions
• Completion of a high school diploma or equivalent is required.
• CPCC placement test is required in mathematics. Developmental courses are available for students to build basic skills and knowledge.
• Students should see a faculty advisor before registration.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Prerequisite for Enrollment
The Geomatics Fundamentals Certificate, C40420-C1, must be completed prior to enrolling in this certificate.

Contact Information
The Geomatics Technology program is in the Engineering Technology Division. For more information, call 704.330.6895.

Major Requirements
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRV 240</td>
<td>Topo/Site Surveying</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 230</td>
<td>Subdivision Planning &amp; Design</td>
<td>3.0</td>
</tr>
<tr>
<td>SRV 111</td>
<td>Surveying II</td>
<td>4.0</td>
</tr>
<tr>
<td>CEG 211</td>
<td>Hydrology &amp; Erosion Control</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>14</td>
</tr>
</tbody>
</table>

Back to Top

Geomatics Technology Certificate with a Specialization in Boundary Surveying (C40420-C3)

This certificate prepares individuals for entry-level positions in boundary surveying. Course work includes fundamental mathematics; fundamentals of open channel hydraulics; fundamentals of hydrology with applications of the Rational Method; principles of boundary, topographic and site surveying; field practices and procedures associated with boundary, topographic and site surveying; fundamentals of residential subdivision layout; and CAD drafting. Course work will apply toward the Associate in Applied Science – Geomatics Technology.

Certificate Awarded
A certificate is awarded in Boundary Surveying upon completion of this program.

Admissions
• Completion of a high school diploma or equivalent is required.
• CPCC placement test is required in mathematics. Developmental courses are available for students to build basic skills and knowledge.
• Students should see a faculty advisor before registration.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Prerequisite for Enrollment
The Geomatics Fundamentals Certificate, C40420-C1 and Boundary Surveying Certificate, C40420-C3, must be completed prior to enrolling in this certificate.

Contact Information
The Geomatics Technology program is in the Engineering Technology Division. For more information, call 704.330.6895.
Major Requirements
CEG 211 Hydrology & Erosion Control 3.0
CEG 230 Subdivision Planning & Design 3.0
SRV 240 Topo/Site Surveying 4.0
SRV 111 Surveying II 4.0
Total Credits 14

Geomatics Technology Certificate Specialization in Mapping (C40420-C5)
This certificate prepares individuals for entry-level positions in the mapping of land. Course work includes fundamental mathematics; principles of boundary and topographic surveying; field practices and procedures associated with boundary and topographic surveying; fundamentals of mapping and map development; and CAD drafting. Course work will apply toward an Associate in Applied Science Surveying Technology degree.
Certificate Awarded
A certificate is awarded in Mapping upon completion of this program.
Prerequisite for Enrollment
The Geomatics Fundamentals Certificate, C40420-C1, must be completed prior to enrolling in this certificate.
Admissions
• Completion of a high school diploma or equivalent is required.
• CPCC placement test is required in mathematics. Develop mental courses are available for students to build basic skills and knowledge.
• Many courses have prerequisites; check the Courses section of the catalog for details.
Major Requirements
SRV 210 Surveying III 4.0
SRV 240 Topo/Site Surveying 4.0
GIS 120 Introduction to Geodesy 3.0
GIS 246 Principles of Property Mapping 3.0
Total Credits 14

Geomatics Technology Certificate Specialization in Geomatics Technology Pathway(C40420-C6)
This certificate is intended for high school juniors and seniors enrolled in a Career Technical Education Pathway. Course work includes fundamental mathematics; principles of Plane Surveying; principles of Route Surveying; principles of Hydrology and basic study of Geographic Information Systems. All course work may be applied toward an Associate in Applied science Degree – Geomatics Technology.

Geospatial Technology
The Geospatial Technology curriculum provides a broad background in Geographic Information System (GIS) and Global Positioning System (GPS) technologies with practical applications in municipal, industrial, natural resources management and other fields.
Coursework consists of class and hands-on experience with GIS/GPS technologies, including running and modifying current GIS software, creating and manipulating GIS databases and operating GPS technology.
Graduates should find employment as field technicians or as database and mapping assistants.

Geospatial Technology (A40220) Degree Awarded
The Associate in Applied Science degree – Geospatial Technology will be awarded by the College upon completion of this program.
Admissions
• A high school diploma or equivalent is required.
• CPCC placement tests are required in English and mathematics. Developmental classes in mathematics and English courses are available for students to build basic skills and knowledge.
• A counseling/orientation appointment follows placement testing.
• Students should see a faculty advisor before registration.
• Many courses have prerequisites or co-requisites; check the Courses section for details.
Note
Students who do not take program-related courses for a one year period must re-enter the program under the Catalog in effect at the time of re-entry.

Contact Information
Geospatial Technology is in the Sciences Division. For more information, call Adam Spillman at 704.330.6652, or visit our website at www.cpcc.edu/science.

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting
Select 3 credits of the following: 3.0
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 111</td>
<td>Introduction to GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 121</td>
<td>Georeferencing &amp; Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geodesy</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 125</td>
<td>CAD for GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 240</td>
<td>Air Photo Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 221</td>
<td>Advanced Topics in GIS</td>
<td>2.0</td>
</tr>
<tr>
<td>GIS 235</td>
<td>Raster GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 110</td>
<td>Introduction to Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 215</td>
<td>GIS Data Models</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 225</td>
<td>Advanced Methods in GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 241</td>
<td>Cartographic Production</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 230</td>
<td>GIS Data Creation</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**GIS Electives**

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 112</td>
<td>Introduction to GPS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 211</td>
<td>GIS/GPS Project</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 222</td>
<td>Internet Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 232</td>
<td>Spatial Databases</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 245</td>
<td>Introduction to Spatial Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 246</td>
<td>Principles of Property Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 251</td>
<td>Computer Graphics/Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 255</td>
<td>Advanced Spatial Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 261</td>
<td>Programming in GIS</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Technical Electives**

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIV 125</td>
<td>Civil/Surveying CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 133</td>
<td>C Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 233</td>
<td>Advanced C Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 134</td>
<td>C++ Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 234</td>
<td>Advanced C++ Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 141</td>
<td>Visual C++ Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 241</td>
<td>Advanced Visual C++ Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 151</td>
<td>JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 251</td>
<td>Advanced JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>CSC 153</td>
<td>C# Programming</td>
<td></td>
</tr>
<tr>
<td>CSC 253</td>
<td>Advanced C# Programming</td>
<td></td>
</tr>
<tr>
<td>DBA 112</td>
<td>Database Utilization</td>
<td></td>
</tr>
<tr>
<td>DBA 115</td>
<td>Database Applications</td>
<td></td>
</tr>
<tr>
<td>EGR 115</td>
<td>Intro to Technology</td>
<td></td>
</tr>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td></td>
</tr>
<tr>
<td>SRV 111</td>
<td>Surveying II</td>
<td></td>
</tr>
<tr>
<td>SRV 210</td>
<td>Surveying III</td>
<td></td>
</tr>
<tr>
<td>SRV 220</td>
<td>Surveying Law</td>
<td></td>
</tr>
<tr>
<td>SRV 250</td>
<td>Advanced Surveying</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>68</strong></td>
</tr>
</tbody>
</table>

- Geospatial Technology Diploma - Geography (D40220-D1)
- Geospatial Technology Diploma - Geographic Information Science (D40220-D2)
- Geospatial Technology Diploma - Geomatics (D40220-D3)

### Geospatial Technology Diplomas (D40220)

#### Geospatial Technology Diploma - Geography (D40220-D1)

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

- ANT 210  General Anthropology
- ANT 220  Cultural Anthropology
- ANT 221  Comparative Cultures
- ECO 151  Survey of Economics
- ECO 251  Principles of Microeconomics
- ECO 252  Principles of Macroeconomics
- HIS 111  World Civilizations I
- HIS 112  World Civilizations II
- HIS 131  American History I
- HIS 132  American History II
- POL 120  American Government
- POL 210  Comparative Government
- POL 220  International Relations
- PSY 150  General Psychology
- PSY 241  Developmental Psychology
- PSY 281  Abnormal Psychology
- SOC 210  Introduction to Sociology
- SOC 213  Sociology of the Family
- SOC 225  Social Diversity

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 111</td>
<td>Introduction to GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 121</td>
<td>Georeferencing &amp; Mapping</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Introduction to Geodesy</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 125</td>
<td>CAD for GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 240</td>
<td>Air Photo Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 131</td>
<td>Physical Geography I</td>
<td>4.0</td>
</tr>
<tr>
<td>GIS 230</td>
<td>GIS Data Creation</td>
<td>3.0</td>
</tr>
<tr>
<td>GIS 241</td>
<td>Cartographic Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits** 37
Geospatial Technology Diploma - Geomatics (D40220-D3)

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
- ANT 210 General Anthropology
- ANT 220 Cultural Anthropology
- ANT 221 Comparative Cultures
- ECO 151 Survey of Economics
- ECO 251 Principles of Microeconomics
- ECO 252 Principles of Macroeconomics
- GEO 111 World Regional Geography
- HIS 111 World Civilizations I
- HIS 112 World Civilizations II
- HIS 131 American History I
- HIS 132 American History II
- POL 120 American Government
- POL 210 Comparative Government
- POL 220 International Relations
- PSY 150 General Psychology
- PSY 241 Developmental Psychology
- PSY 281 Abnormal Psychology
- SOC 210 Introduction to Sociology
- SOC 213 Sociology of the Family
- SOC 225 Social Diversity

Major Requirements
GIS 111 Introduction to GIS 3.0
GIS 121 Georeferencing & Mapping 3.0
GIS 120 Introduction to Geodesy 3.0
GIS 125 CAD for GIS 3.0
GIS 240 Air Photo Interpretation 3.0
EGR 115 Intro to Technology 3.0
EGR 115A Intro to Technology Lab 1.0
SRV 110 Surveying I 4.0
SRV 111 Surveying II 4.0
SRV 220 Surveying Law 3.0

Total Credits 36

Back to Top

Geospatial Technology Certificates (C40220)

Geospatial Technology Certificate - Geographic Information Science (C40220-C1)

Major Requirements
GIS 111 Introduction to GIS 3.0
GIS 121 Georeferencing & Mapping 3.0
GIS 120 Introduction to Geodesy 3.0
GIS 240 Air Photo Interpretation 3.0
GIS 125 CAD for GIS 3.0

Total Credits 15

Back to Top

Geospatial Technology Certificate Geospatial Specialist (C40220-C2)

Major Requirements
GIS 111 Introduction to GIS 3.0
GIS 121 Georeferencing & Mapping 3.0

Technical Electives
Select 6 credits of the following: 6.0
- GIS 240 Air Photo Interpretation
- GIS 215 GIS Data Models
- GIS 230 GIS Data Creation
- GIS 232 Spatial Databases
- GIS 252 Utilities in GIS
- GIS 231 Geographical Positioning System Methods
- GIS 255 Advanced Spatial Analysis
- GIS 225 Advanced Methods in GIS
- GIS 241 Cartographic Production
- GIS 235 Raster GIS
- GIS 222 Internet Mapping
- GIS 246 Principles of Property Mapping
- GIS 245 Introduction to Spatial Analysis
- GIS 221 Advanced Topics in GIS
- GIS 249 Remote Sensing
- GIS 259 Photogrammetry

Total Credits 12

Back to Top

- Geospatial Technology Certificate - Geographic Information Science (C40220-C1)
- Geospatial Technology Certificate Geospatial Specialist (C40220-C2)
- Geospatial Technology Certificate Database Specialist (C40220-C3)
- Geospatial Technology Certificate Programming Specialist (C40220-C4)
- Geospatial Technology Certificate Geodetic Specialist (C40220-C5)
### Geospatial Technology Certificate - Database Specialist (C40220-C3)

**Major Requirements**
- GIS 111 Introduction to GIS 3.0
- GIS 121 Georeferencing & Mapping 3.0
- DBA 110 Database Concepts 3.0

**Technical Electives**
Select 6 credits of the following:
- DBA 115 Database Applications 3.0
- GIS 215 GIS Data Models 3.0
- GIS 232 Spatial Databases 3.0

**Total Credits** 15

### Geospatial Technology Certificate - Photogrammetry Specialist (C40220-C6)

**Major Requirements**
- GIS 121 Georeferencing & Mapping 3.0
- GIS 240 Air Photo Interpretation 3.0
- GIS 249 Remote Sensing 3.0
- GIS 259 Photogrammetry 3.0

**Total Credits** 12

### Geospatial Technology Certificate - Cartography Specialist (C40220-C7)

**Major Requirements**
- GIS 111 Introduction to GIS 3.0
- GIS 121 Georeferencing & Mapping 3.0
- GIS 232 Spatial Databases 3.0
- GIS 222 Internet Mapping 3.0

**Total Credits** 12

### Geospatial Technology Certificate - Cartography Specialist (C40220-C7)

**Major Requirements**
- GIS 111 Introduction to GIS 3.0
- GIS 121 Georeferencing & Mapping 3.0
- GIS 232 Spatial Databases 3.0
- GIS 222 Internet Mapping 3.0

**Total Credits** 12

### Geospatial Technology Certificate - Geodetic Specialist (C40220-C5)

**Major Requirements**
- GIS 111 Introduction to GIS 3.0
- GIS 122 Introduction to GPS 3.0
- SRV 220 Surveying Law 4.0

**Technical Electives**
- GIS 120 Introduction to Geodesy 3.0
- SRV 250 Advanced Surveying 3.0

**Total Credits** 13

### Geospatial Technology Certificate - Land Records Specialist (C40220-C9)

**Major Requirements**
- GIS 111 Introduction to GIS 3.0
- GIS 121 Georeferencing & Mapping 3.0
- GIS 246 Principles of Property Mapping 3.0
- SRV 220 Surveying Law 3.0

**Total Credits** 12

### Geospatial Technology Certificate - Geospatial Analyst (C40220-C10)

**Major Requirements**
- GIS 225 Advanced Methods in GIS 3.0
- GIS 215 GIS Data Models 3.0
- GIS 221 Advanced Topics in GIS 3.0
- GIS 222 Internet Mapping 3.0
- GIS 223 Internet Mapping 3.0

**Total Credits** 12
College-Level Programs

GIS 235  Raster GIS  3.0

Electives
Select 2 of the following courses:  6.0
GIS 230  GIS Data Creation
GIS 232  Spatial Databases
GIS 246  Principles of Property Mapping
GIS 245  Introduction to Spatial Analysis
GIS 249  Remote Sensing
GIS 255  Advanced Spatial Analysis

Total Credits  17

Back to Top

Graphic Arts and Imaging Technology

The Graphics Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging and related industries.

Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, flexography and emerging printing technologies.

Graduates should qualify for career opportunities within the printing, publishing and packaging industries.

Graphic Arts and Imaging Technology (A30180)

Degree Awarded
The Associate in Applied Science degree-Graphic Arts and Imaging Technology is awarded by the College upon completion of this program.

Admissions
- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts.
- Placement testing in English, mathematics and reading is required to qualify for ENG 111 and MAT 115. Scores on placement tests may require students to take specified Developmental Studies courses. If required, completion of these courses is necessary prior to program admission. Students may, with approval of program chair, take no more than two preadmission courses during their first semester of program admission.
- Students must demonstrate proficiency in computer operation equivalent to or higher than CIS 110 before admission.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Notes
Students must furnish required hand tools for program. A list of these items can be obtained from the program chair or instructors.

Contact Information
The Graphic Arts and Imaging Technology program is in the Technical Careers Division. For more information, call 704.330.4425 or 704.330.4427. See Graphic Arts and Imaging Technology Program instructors or program counselors for suggested sequence.

General Education Requirements
ENG 111  Expository Writing  3.0
MAT 115  Mathematical Models  3.0
ENG 113  Literature-Based Research  3.0
or ENG 114  Professional Research & Reporting
COM 110  Introduction to Communication  3.0
or COM 231  Public Speaking
Select 3 credits of the following:  3.0
ART 111  Art Appreciation
ART 114  Art History Survey I
ART 115  Art History Survey II
ART 116  Survey of American Art
ART 117  Non-Western Art History
DAN 110  Dance Appreciation
DAN 211  Dance History I
DAN 212  Dance History II
DRA 111  Theatre Appreciation
DRA 112  Literature of the Theatre
DRA 122  Oral Interpretation
ENG 231  American Literature I
ENG 232  American Literature II
ENG 241  British Literature I
ENG 242  British Literature II
ENG 251  Western World Literature I
ENG 252  Western World Literature II
HUM 130  Myth in Human Culture
HUM 160  Introduction to Film
HUM 211  Humanities I
HUM 212  Humanities II
MUS 110  Music Appreciation
MUS 112  Introduction to Jazz
MUS 210  History of Rock Music
MUS 213  Opera and Musical Theatre
PHI 220  Western Philosophy I
PHI 221  Western Philosophy II
PHI 230  Introduction to Logic
REL 110  World Religions
REL 111  Eastern Religions
REL 211  Introduction to Old Testament
REL 212  Introduction to New Testament
REL 221  Religion in America
Select 3 credits of the following:  3.0
ANT 210  General Anthropology
ANT 220  Cultural Anthropology
ANT 221  Comparative Cultures
ECO 151  Survey of Economics
ECO 251  Principles of Microeconomics
ECO 252  Principles of Macroeconomics
GEO 111  World Regional Geography
HIS 111  World Civilizations I
### Degree Awarded

The Associate in Applied Science-Graphic and Imaging Technology/Flexography degree is awarded by the College upon completion of this program.

### Admissions

- A high school diploma or equivalent is required.
- Submit high school transcripts and any college transcripts.
- Placement testing in English, mathematics and reading is required to qualify for ENG 111 and MAT 115. Scores on placement tests may require students to take specified Developmental Studies courses. If required, completion of these courses is necessary prior to program admission. Students may, with approval of the program chair, take no more than two preadmission courses during their first semester of program admission.
- Students must demonstrate proficiency in computer operations equivalent to or higher than CIS 110 before admission.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

### Notes

Students must furnish required hand tools for program. A list of these items can be obtained from the program chair or instructors.

### Contact Information

Graphic and Imaging Technology Flexography is in the Technical Careers Division. For more information, call 704.330.4425 or 704.330.4427. See Graphic Arts and Imaging Technology Program instructors or program counselors for suggested sequence of courses.

### General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
</tr>
<tr>
<td>COM 233</td>
<td>Persuasive Speaking</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
</tbody>
</table>

---

**Graphic Arts and Imaging Technology Flexography Concentration (A3018A)**

Flexography is a concentration under the Graphic Arts and Imaging Technology curriculum. This curriculum is designed to allow students to gain further study into the flexographic printing production process.

Students will produce jobs for labels, tags, boards, packaging and corrugated jobs found in segments of the flexographic industry. Students will concentrate on color reproduction and produce products while understanding the limitations within the production process.

Graduates should qualify for career opportunities within the printing, publishing and packaging industries.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

- ANT 210 General Anthropology
- ANT 220 Cultural Anthropology
- ANT 221 Comparative Cultures
- ECO 151 Survey of Economics
- ECO 251 Principles of Microeconomics
- ECO 252 Principles of Macroeconomics
- GEO 111 World Regional Geography
- HIS 111 World Civilizations I
- HIS 112 World Civilizations II
- HIS 131 American History I
- HIS 132 American History II
- POL 120 American Government
- POL 210 Comparative Government
- POL 220 International Relations
- PSY 150 General Psychology
- PSY 241 Developmental Psychology
- PSY 281 Abnormal Psychology
- SOC 210 Introduction to Sociology
- SOC 213 Sociology of the Family
- SOC 225 Social Diversity
- POL 110 Introduction to Political Science
- PSY 237 Social Psychology
- SOC 220 Social Problems

**Technical Electives**
Select 12 credits of the following: 12.0

- PRN 155 Screen Printing I
- GRA 230 Substrates & Ink
- PRN 240 Print Estimating/Planning
- GRA 245 Printing Sales/Service
- GRA 110 Graphic Arts Orientation
- GRA 140 Graphic Arts Imaging
- GRA 252 Imaging Techniques
- GRA 280 Printing Management
- PRN 156 Screen Printing II
- PRN 221 Offset Press Operations
- GRA 222 Graphic Arts III
- GRA 154 Computer Graphics IV
- PRN 140 Bindery & Finishing
- GRA 161 Computer Graphics Applications I
- GRA 162 Computer Graphics Applications II
- GRA 163 Computer Graphics Applications III
- GRA 164 Computer Graphics Applications IV
- COE 112 Co-Op Work Experience I
- COE 132 Co-Op Work Experience III

Total Credits 76

No diplomas offered.

- Graphic Arts & Imaging Technology Certificate with a Specialization in Offset Press Technician (C30180-C7)
- Graphic Arts & Imaging Technology Certificate with a Specialization in Print Shop Assistant (C30180-C8)
- Graphic Arts & Imaging Technology Certificate with a Specialization in Entry Level Prepress Technician (C30180-C9)
- Graphic Arts & Imaging Technology Certificate with a Specialization in Advanced Prepress Technician (C30180-10)
- Graphic Arts & Imaging Technology Certificate with a Specialization in Screen Printing Technician (C30180-11)
- Graphic Arts & Imaging Technology Certificate with a Specialization in Flexography Technician (C3018A-C1)

**Graphic Arts and Imaging Technology Certificates (C30180)**
### Graphic Arts & Imaging Technology Certificate with a Specialization in Offset Press Technician (C30180-C7)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 121</td>
<td>Graphic Arts I</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 221</td>
<td>Graphic Arts II</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 230</td>
<td>Substrates &amp; Ink</td>
<td>2.0</td>
</tr>
<tr>
<td>PRN 221</td>
<td>Offset Press Operations</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

### Graphic Arts & Imaging Technology Certificate with a Specialization in Print Shop Assistant (C30180-C8)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 121</td>
<td>Graphic Arts I</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 221</td>
<td>Graphic Arts II</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 151</td>
<td>Computer Graphics I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 245</td>
<td>Printing Sales/Service</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

### Graphic Arts & Imaging Technology Certificate with a Specialization in Entry Level Prepress Technician (C30180-C9)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 121</td>
<td>Graphic Arts I</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 151</td>
<td>Computer Graphics I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 152</td>
<td>Computer Graphics II</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 221</td>
<td>Graphic Arts II</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 140</td>
<td>Graphic Arts Imaging</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

### Graphic Arts & Imaging Technology Certificate with a Specialization in Advanced Prepress Technician (C30180-10)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 255</td>
<td>Image Manipulation I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 256</td>
<td>Image Manipulation II</td>
<td>2.0</td>
</tr>
<tr>
<td>GRD 141</td>
<td>Graphic Design I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Graphic Arts & Imaging Technology Certificate with a Specialization in Screen Printing Technician (C30180-11)

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 121</td>
<td>Graphic Arts I</td>
<td>4.0</td>
</tr>
<tr>
<td>GRA 151</td>
<td>Computer Graphics I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 255</td>
<td>Image Manipulation I</td>
<td>2.0</td>
</tr>
<tr>
<td>PRN 155</td>
<td>Screen Printing I</td>
<td>2.0</td>
</tr>
<tr>
<td>GRA 153</td>
<td>Computer Graphics III</td>
<td>2.0</td>
</tr>
<tr>
<td>PRN 156</td>
<td>Screen Printing II</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

### Graphic Arts & Imaging Technology Flexography Certificates (C3018A)

### Graphic Arts & Imaging Technology Certificate with a Specialization in Flexography Technician (C3018A-C1)

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRA 121</td>
<td>Graphic Arts I</td>
<td>4.0</td>
</tr>
<tr>
<td>PRN 131</td>
<td>Flexography I</td>
<td>4.0</td>
</tr>
<tr>
<td>PRN 132</td>
<td>Flexography II</td>
<td>4.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

### Health Information Technology

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage and report health information.

Graduates will supervise department functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security.

Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician (RHIT). Employment opportunities include hospitals, rehabilitation facilities, and other health care organizations.
facilities, nursing homes, health insurance organizations, out-patient clinics, physicians' offices, hospice and mental health facilities.

Health Information Technology (A45360)

Admissions

- A high school diploma or equivalent is required for program admission.
- Complete a CPCC Admission Application
- Submit official high school transcripts and any official college transcripts (if applicable) to the CPCC Student Records Office.
- In order for college transcripts to be evaluated, submit a Transcript Evaluation Request Form located at www.cpcc.edu/admissions/student-records to the CPCC Student Records Office.
- Complete required placement testing.
- Meet with an academic advisor or counselor for preliminary counseling and interpretation of placement test scores.
- Take the Test of Essential Academic Skills (TEAS)
- This curriculum may be completed on a part-time or full-time basis. Please visit the program website at http://www.cpcc.edu/health_sciences/health-information-technology for more information.
- Attend a HIT Program Information Session prior to admission to the program. Visit the program website listed above for dates and times.
- Complete the HIT Program Admission Packet located at the program website link above.
- Upon admission to the program, students must take all courses as scheduled and sequenced.
- Progression in this program is dependent on satisfying course prerequisites, co-requisites and maintaining a grade of “C” or better for all courses in the curriculum.
- BIO 168, BIO 169, CIS 110, DBA 112, MED 121, and MED 122 must have been completed within the five years previous to registration for a HIT course for which they are prerequisites or co-requisites.
- Students re-entering the HIT program must successfully re-take any HIT courses taken five or more years prior to the re-entry point.
- Visit the Health Information Technology website at: www.cpcc.edu/health_sciences/health-information-technology for additional admission information.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
- In order to participate in Professional Practice Experiences at health care facilities, students are required to submit results of a North Carolina state or national criminal background check at their own expense. Students must complete a medical exam, drug test, provide record of immunizations, show proof of medical insurance and carry CPCC’s accident insurance. The student is responsible for the cost of medical exams, drug tests, immunizations, insurance and criminal background checks. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Program Accreditation

The Health Information Technology program at CPCC is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)

Notes

ACA 118 is highly recommended before entrance in the Health Information Technology program.

- The Health Information Technology Program is offered entirely online with the exception of Professional Practice Experience courses. Professional Practice Experience sites must be geographically accessible to our faculty to insure adequate supervision.
- In addition to tuition and textbooks, there are program-related costs. Professional Practice Experience courses requires a physical examination (including drug testing), updated immunizations and criminal background checks. Professional Practice Experience courses require travel to health care facilities that may be at a distance from the student’s home.

Contact Information

The Health Information Technology Program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/health-information-technology. If further assistance is needed, contact the Program Chair at 704.330.6187.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
</tbody>
</table>

168
### Health Information Technology Certificates (C45360-C5)

#### Specialization in Electronic Health Record Implementation Support

This certificate is designed to prepare professionals for Health IT EHR Technical Support. Course work includes fundamentals of healthcare, EHR’s and healthcare informatics.

Workers in this role provide on-site user support for the period of time before and during implementation of health IT systems in clinical and public health settings. These individuals will provide support services, above and beyond what is provided by the vendor, to be sure the technology functions properly and is configured to meet the needs of the redesigned practice workflow.

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 110</td>
<td>Fundamentals of Health Information Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 114</td>
<td>Health Data Systems and Standards</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 220</td>
<td>Health Informatics &amp; EHRs</td>
<td>2.0</td>
</tr>
<tr>
<td>HIT 221</td>
<td>Lifecycle of Electronic Health Record</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 225</td>
<td>Healthcare Informatics</td>
<td>4.0</td>
</tr>
<tr>
<td>HIT 227</td>
<td>Informatics Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

### Health Information Technology Certificates (C45360-C6)

#### Specialization in Practice Workflow & Information Management Redesign Specialist

This certificate is designed to prepare professionals for Health IT EHR workflow and design. Coursework includes fundamentals of healthcare, EHR’s, health care informatics and project management.

Workers in this role assist in reorganizing the work of a healthcare provider to take full advantage of the features of health IT in pursuit of meaningful use of health IT to improve health and care.

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT 110</td>
<td>Fundamentals of Health Information Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 114</td>
<td>Health Data Systems and Standards</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 220</td>
<td>Health Informatics &amp; EHRs</td>
<td>2.0</td>
</tr>
<tr>
<td>HIT 221</td>
<td>Lifecycle of Electronic Health Record</td>
<td>3.0</td>
</tr>
<tr>
<td>HIT 225</td>
<td>Healthcare Informatics</td>
<td>4.0</td>
</tr>
<tr>
<td>HIT 227</td>
<td>Informatics Project Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

### Horticulture Technology

The Horticulture Technology curriculum is designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study.

Coursework includes plant science, plant materials, propagation, soils, fertilizers and pest management. Horticulture Technology is a program that focuses on the general production and management of cultivated plants, shrubs, flowers, foliage, trees, groundcovers and
related plant materials: the management of technical and business operations connected with horticultural services; and the basic science principles needed to understand plants and their management and care. Also included are courses in plant production, landscaping and the management and operation of horticulture businesses.

Graduates should qualify for employment opportunities in nurseries, garden centers, greenhouses, landscape operations, gardens and governmental agencies. Graduates should also be prepared to take the certified plant professional and licensed pesticide applicators examinations, the North Carolina Certified Plant Professional Exam, as well as the ISA certified arborist exam.

Horticulture Technology (A15240)

Degree Awarded
The Associate in Applied Science - Horticulture Technology is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent (available through CPCC) is required.
• CPCC placement tests are required in English and mathematics. Developmental Studies mathematics and English courses are available for students to build basic skills and knowledge.
• A counseling/orientation appointment follows placement testing.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information
The Horticulture Technology program is in the Professional Careers Division. For more information call 704.330.4827.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 160</td>
<td>Plant Materials I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 164</td>
<td>Horticultural Pest Management</td>
<td></td>
</tr>
<tr>
<td>HOR 166</td>
<td>Soils and Fertilizers</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 112</td>
<td>Landscape Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 162</td>
<td>Applied Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 168</td>
<td>Plant Propagation</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 124</td>
<td>Nursery Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 116</td>
<td>Landscape Management I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 134</td>
<td>Greenhouse Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 260</td>
<td>Plant Materials II</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 273</td>
<td>Horticultural Management &amp; Marketing</td>
<td></td>
</tr>
<tr>
<td>HOR 253</td>
<td>Horticulture Turfgrass</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
<td></td>
</tr>
</tbody>
</table>

Technical Electives

Select 12 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 160</td>
<td>Plant Materials I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 164</td>
<td>Horticultural Pest Management</td>
<td></td>
</tr>
<tr>
<td>HOR 166</td>
<td>Soils and Fertilizers</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 112</td>
<td>Landscape Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 162</td>
<td>Applied Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 168</td>
<td>Plant Propagation</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 124</td>
<td>Nursery Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 116</td>
<td>Landscape Management I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 134</td>
<td>Greenhouse Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 260</td>
<td>Plant Materials II</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 273</td>
<td>Horticultural Management &amp; Marketing</td>
<td></td>
</tr>
<tr>
<td>HOR 253</td>
<td>Horticulture Turfgrass</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
<td></td>
</tr>
</tbody>
</table>

Technical Electives

Select 12 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 213</td>
<td>Landscape Design II</td>
<td></td>
</tr>
<tr>
<td>HOR 273</td>
<td>Horticultural Management &amp; Marketing</td>
<td></td>
</tr>
<tr>
<td>HOR 253</td>
<td>Horticulture Turfgrass</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
<td></td>
</tr>
</tbody>
</table>

170
Central Piedmont Community College

Horticulture Technology Diploma (D15240)

This diploma is designed to prepare individuals for entry-level positions in the area of horticulture. Course work includes plant science, plant materials, soils and fertilizers, pest management, propagations, plant production and landscaping.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 150</td>
<td>Introduction to Horticulture</td>
<td></td>
</tr>
<tr>
<td>HOR 114</td>
<td>Landscape Construction</td>
<td></td>
</tr>
<tr>
<td>HOR 215</td>
<td>Landscape Irrigation</td>
<td></td>
</tr>
<tr>
<td>HOR 170</td>
<td>Horticulture Computer Application</td>
<td></td>
</tr>
<tr>
<td>HOR 118</td>
<td>Equipment Operation and Maintenance</td>
<td></td>
</tr>
<tr>
<td>HOR 251</td>
<td>Insects &amp; Diseases</td>
<td></td>
</tr>
<tr>
<td>HOR 265</td>
<td>Advanced Plant Materials</td>
<td></td>
</tr>
<tr>
<td>HOR 154</td>
<td>Introduction to Horticulture Therapy</td>
<td></td>
</tr>
<tr>
<td>TRF 110</td>
<td>Introduction Turfgrass Cultivation &amp; Id And Identification</td>
<td></td>
</tr>
<tr>
<td>TRF 152</td>
<td>Landscape Maintenance</td>
<td></td>
</tr>
<tr>
<td>HOR 245</td>
<td>Horticultural Specialty Crops</td>
<td></td>
</tr>
<tr>
<td>TRF 130</td>
<td>Native Flora ID</td>
<td></td>
</tr>
<tr>
<td>HOR 217</td>
<td>Landscape Management II</td>
<td></td>
</tr>
<tr>
<td>HOR 235</td>
<td>Greenhouse Production</td>
<td></td>
</tr>
<tr>
<td>AGR 120</td>
<td>Pesticide Use &amp; Handling</td>
<td></td>
</tr>
<tr>
<td>HOR 293</td>
<td>Selected Topics in Horticulture</td>
<td></td>
</tr>
<tr>
<td>HOR 142</td>
<td>Fruit &amp; Vegetable Production</td>
<td></td>
</tr>
<tr>
<td>HOR 255</td>
<td>Interiorscapes</td>
<td></td>
</tr>
<tr>
<td>HOR 225</td>
<td>Nursery Production</td>
<td></td>
</tr>
<tr>
<td>HOR 268</td>
<td>Advanced Propagation</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 72

Horticulture Technology Certificate with a Specialization in Landscape Design (C15240-C1)

This certificate is designed to prepare individuals for horticultural careers in the specialized area of landscape design. Coursework includes plant materials, design, graphics and landscape computer applications.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 160</td>
<td>Plant Materials I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 162</td>
<td>Applied Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 164</td>
<td>Horticultural Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 166</td>
<td>Soils and Fertilizers</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 168</td>
<td>Plant Propagation</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 124</td>
<td>Nursery Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 134</td>
<td>Greenhouse Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 112</td>
<td>Landscape Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 150</td>
<td>Introduction to Horticulture</td>
<td>2.0</td>
</tr>
<tr>
<td>HOR 253</td>
<td>Horticulture Turfgrass</td>
<td>3.0</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Electives

Select 6 credits of the following: 6.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 213</td>
<td>Landscape Design II</td>
<td></td>
</tr>
<tr>
<td>HOR 114</td>
<td>Landscape Construction</td>
<td></td>
</tr>
<tr>
<td>HOR 215</td>
<td>Landscape Irrigation</td>
<td></td>
</tr>
<tr>
<td>HOR 170</td>
<td>Horticulture Computer Application</td>
<td></td>
</tr>
<tr>
<td>HOR 118</td>
<td>Equipment Operation and Maintenance</td>
<td></td>
</tr>
<tr>
<td>HOR 265</td>
<td>Advanced Plant Materials</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 16

Back to Top
Horticulture Technology Certificate with a Specialization in Horticulture Maintenance (C15240-C5)

This certificate is designed to prepare individuals for horticultural careers in maintaining landscape and turf areas. Coursework includes plant materials, pest management and landscape and turfgrass management.

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOR 116</td>
<td>Landscape Management I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 164</td>
<td>Horticultural Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 118</td>
<td>Equipment Operation and Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>or HOR 257</td>
<td>Arboriculture Practices</td>
<td></td>
</tr>
<tr>
<td>HOR 160</td>
<td>Plant Materials I</td>
<td>3.0</td>
</tr>
<tr>
<td>or HOR 260</td>
<td>Plant Materials II</td>
<td></td>
</tr>
<tr>
<td>HOR 253</td>
<td>Horticulture Turfgrass</td>
<td>3.0</td>
</tr>
<tr>
<td>or TRF 110</td>
<td>Introduction Turfgrass Cultivation &amp; Identification</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 14

Back to Top

Hospitality Management

The Hospitality Management curriculum prepares individuals to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions and clubs.

Course work includes guest services, leadership, management, restaurant operations, lodging operations, marketing, sanitation, food preparation, food and beverage management and other critical areas.

Graduates should qualify for management or entry-level supervisory positions in food and lodging operations, including restaurants, foodservice, beverage service, catering, front office, reservations and housekeeping. Opportunities are also available in product services and technology support and sales.

Hospitality Management (A25110) Degree Awarded

The Associate in Applied Science Degree – Hospitality Management is awarded by the College upon completion of this program.

Admissions

- Complete a CPCC Admissions Form
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM, and BPA prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see the Hospitality Management Program Chair, Richard Spellman, 704.330.6669.
- Many courses have prerequisites or corequisites. Check the Courses section for details.
- Students must have a CUL, HRM, or BPA program code.

Notes

- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM, and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.

Contact Information

The Hospitality Management program is in the Hospitality Education Division. For more information, call 704.330.6669.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 237</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 110</td>
<td>Introduction to Hospitality and Tourism</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 140</td>
<td>Legal Issues-Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 220</td>
<td>Cost Control-Food and Beverage</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 240</td>
<td>Marketing for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 245</td>
<td>Human Resource Management-Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 280</td>
<td>Management Problems-Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 120</td>
<td>Front Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 210</td>
<td>Meetings and Event Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 225</td>
<td>Beverage Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 135</td>
<td>Food and Beverage Service</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 135A</td>
<td>Food and Beverage Service Lab</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 130</td>
<td>Menu Design</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 125</td>
<td>Etiquette for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 150</td>
<td>Training for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 230</td>
<td>Club &amp; Resort Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 142</td>
<td>Fundamentals of Food</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 273</td>
<td>Career Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits: 74
Hospitality Management Diplomas (D25110)

Diplomas earned in the Hospitality Management Program (A25110) are awarded by the College upon successful completion of the program and can be applied toward the Hospitality Management Degree Program.

Admissions

- Complete a CPCC Admissions Form
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM and BPA prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see the Hospitality Management Program Chair, Richard Spellman, 704.330.6669.
- Many courses have prerequisites or co-requisites. Check the Courses section for details.
- Students must have a CUL, HRM, or BPA program code.

Notes

- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.

Contact Information

The Hospitality Management program is in the Hospitality Education Division. For more information, call 704.330.6669.

Hotel Management Diploma (D25110-D1)

This curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in the hotel industry.

Course work includes front office management, guest services, sanitation, menu writing, quality management, law, marketing and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level management positions in lodging including front office, reservations and marketing.

Diploma Awarded

A diploma in Hotel Management is awarded by the College upon completion of this program.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3</td>
<td>credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 110</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 115</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Pre-calculus Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Comm.</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Restaurant Management Diploma (D25110-D2)

This curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in the restaurant industry.

Course work includes law, food & beverage service, food preparation, guest services, sanitation, quality management and other areas critical to the success of hospitality professionals.

Upon completion graduates should qualify for supervisory or entry-level dining room management positions.

Diploma Awarded

A diploma in Restaurant Management is awarded by the College upon completion of this program.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3</td>
<td>credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 110</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 115</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>
MAT 172 Precalculus Trigonometry
MAT 175 Precalculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III

Select 3 credits of the following: 3.0
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking

Major Requirements
CUL 110 Sanitation and Safety 2.0
HRM 110 Introduction to Hospitality and Tourism 3.0
HRM 140 Legal Issues-Hospitality 3.0
HRM 220 Cost Control-Food and Beverage 3.0
HRM 245 Human Resource Management-Hospitality 3.0
HRM 280 Management Problems-Hospitality 3.0
COE 112 Co-Op Work Experience I 2.0
HRM 225 Beverage Management 3.0
CIS 111 Basic PC Literacy 2.0
CUL 135 Food and Beverage Service 2.0
CUL 135A Food and Beverage Service Lab 1.0
HRM 125 Etiquette for Hospitality 1.0
HRM 150 Training for Hospitality 3.0
CUL 111 Success in Hospitality Studies 1.0
CUL 142 Fundamentals of Food 5.0

Total Credits 46

Hospitality Management Certificates
(C25110)

Certificates earned in the Hospitality Management Program are awarded by the college upon successful completion of the program and can be applied toward the Hospitality Management Degree Program.

Admissions
- Complete a CPCC Admissions Form.
- Submit an official high school diploma as well as college transcripts to the Admission/Records Center.
- Take placement tests in English, reading, and arithmetic.
- All needed developmental studies courses must be completed prior to beginning CUL, HRM, and BPA prefix courses.
- Make an appointment to see an academic advisor.
- Make an appointment to see the Hospitality Management Program Chair, Richard Spellman, 704.330.6669.

- Many courses have prerequisites or co-requisites. Check the Courses section for details.
- Students must have a CUL, HRM, or BPA program code.

Notes
- Progression in this program is dependent upon a score of “C” or better in all courses with CUL, HRM, and BPA prefixes.
- All CUL and BPA lab classes require student accident medical insurance.

Contact Information
The Hospitality Management program is in the Hospitality Education Division. For more information, call 704.330.6669.

Restaurant Management Certificate I (C25110-C1)
This curriculum prepares students who would like to be employed in entry-level supervisory positions in the restaurant industry.

Major Requirements
CUL 110 Sanitation and Safety 2.0
HRM 220 Cost Control-Food and Beverage 3.0
HRM 225 Beverage Management 3.0
HRM 125 Etiquette for Hospitality 1.0
HRM 150 Training for Hospitality 3.0
CUL 111 Success in Hospitality Studies 1.0

Total Credits 16

Hotel Management Certificate I (C25110-C2)
This curriculum trains students to acquire the skills needed for entry-level hotel supervisory positions.

Major Requirements
HRM 110 Introduction to Hospitality and Tourism 3.0
HRM 220 Cost Control-Food and Beverage 3.0
HRM 120 Front Office Procedures 3.0
HRM 125 Etiquette for Hospitality 1.0
HRM 150 Training for Hospitality 3.0
HRM 230 Club & Resort Management 3.0
CUL 111 Success in Hospitality Studies 1.0

Total Credits 17

Management Skills Certificate (C25110-C3)
This curriculum is intended for students who have thorough knowledge of service within the hospitality industry and desire training in management skills. This certificate will help prepare students for entry-level supervisory or management positions in the hospitality industry.
College-Level Programs

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 140</td>
<td>Legal Issues-Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 220</td>
<td>Cost Control-Food and Beverage</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 240</td>
<td>Marketing for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 245</td>
<td>Human Resource Management-Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 125</td>
<td>Etiquette for Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>HRM 150</td>
<td>Training for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>17</td>
</tr>
</tbody>
</table>

Sales and Events Certificate (C25110-C4)

This curriculum presents an introduction to sales and service of conventions and events in various hospitality industry segments. This certificate helps students to explore and train for careers available in the planning and execution of events and conventions.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>HRM 240</td>
<td>Marketing for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 210</td>
<td>Meetings and Event Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 135</td>
<td>Food and Beverage Service</td>
<td>2.0</td>
</tr>
<tr>
<td>CUL 135A</td>
<td>Food and Beverage Service Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>CUL 130</td>
<td>Menu Design</td>
<td>2.0</td>
</tr>
<tr>
<td>HRM 125</td>
<td>Etiquette for Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>HRM 230</td>
<td>Club &amp; Resort Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>18</td>
</tr>
</tbody>
</table>

Service Certificate (C25110-C5)

This curriculum introduces students to the basic practices and concepts of providing guest service in a hospitality setting. This certificate prepares students for entry-level service or supervisory positions in the hospitality industry.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 110</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>HRM 120</td>
<td>Front Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>HRM 210</td>
<td>Meetings and Event Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 135</td>
<td>Food and Beverage Service</td>
<td>2.0</td>
</tr>
<tr>
<td>CUL 135A</td>
<td>Food and Beverage Service Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>HRM 125</td>
<td>Etiquette for Hospitality</td>
<td>1.0</td>
</tr>
<tr>
<td>HRM 150</td>
<td>Training for Hospitality</td>
<td>3.0</td>
</tr>
<tr>
<td>CUL 111</td>
<td>Success in Hospitality Studies</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>16</td>
</tr>
</tbody>
</table>

Human Services Technology

The Human Services Technology curriculum prepares students for entry and mid-level positions in institutions and agencies that provide social, community and educational services.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, childcare, family services, social services, rehabilitation, correction and educational agencies.

• Human Services Technology (A45380)
• Human Services Technology Developmental Disabilities Concentration (A4538A)
• Human Services Technology Substance Abuse Concentration (A4538E)

Human Services Technology (A45380)

Degree Awarded

The Associate in Applied Science Degree - Human Services Technology is awarded by the College upon completion of this program.

Admissions

• Complete required CPCC application.
• Submit high school transcripts as well as any college transcripts.
• Take required placement tests.
• Complete required Developmental Studies reading and writing classes with a “C” or better.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation

Human Services Technology Substance Abuse courses may be used in applying for certification by the North Carolina Substance Abuse Professional Practice Board. Course materials help students become eligible to take the Human Services Board Certified Credential exam (HS-BCP), a national Human Services Credential.

All Human Services Programs articulate with the Queens University of Charlotte degree in Human and Community Services and Pfeiffer University. Many courses are also accepted at Gardner Webb and Wingate Universities.

Notes

Students must receive a final grade of “C” or higher in all DDT, HSE, SAB and GRO courses in order to receive credit toward a Human Services Technology degree or certificate.

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work.
A suggested course sequence list is available from the program chair.

Contact Information
The Human Services Technology program is in the Nursing, Human Services and Early Childhood Division. For more information, call 704.330.6496, 704.330.6153, or visit our website at www.cpcc.edu/nursing_human_services/.

General Education Requirements

**ENG 111**  Expository Writing  3.0
**MAT 115**  Mathematical Models  3.0
**ENG 113**  Literature-Based Research  3.0
or **ENG 114**  Professional Research & Reporting
**COM 231**  Public Speaking  3.0
or **COM 110**  Introduction to Communication

Select 3 credits of the following:  3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td>3</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td>3</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td>3</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td>3</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td>3</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td>3</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td>3</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td>3</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td>3</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td>3</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3</td>
</tr>
<tr>
<td>or SOC 210</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits  73

Back to Top

Human Services Technology
Developmental Disabilities Concentration
(A4538A)

The Human Services Technology/Developmental Disabilities program is designed to train students to work with children and adults with physical, mental and emotional disabilities. Students will specialize in the areas of developmental disabilities and mental retardation.

Students will gain an understanding of the handicapping effects of developmental disabilities in medical, psychological, social, educational, vocational and economic terms. Fieldwork and clinical experience in community agencies providing comprehensive services to persons with disabilities and their families will be provided.

Graduates should qualify for employment in group homes, foster care homes, respite services, vocational rehabilitation agencies, sheltered workshops, supported employment programs, adult vocational programs, early childhood intervention programs and other programs for individuals with developmental disabilities and mental retardation.

Degree Awarded
The Associate in Applied Science Degree - Human Services Technology with a concentration in Developmental Disabilities is awarded by the College upon completion of this program.

Admissions
- Complete required CPCC application.
- Submit high school transcripts and any college transcripts.
- Take required placement tests.
• Complete required Developmental Studies reading and writing classes with a “C” or better.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation
Some Human Services Technology courses have been approved by the National Board for Certified Counselors (NBCC) for Professional Counselor (NCC) renewal credit. Please check with Human Services program chairs for specific course information. Human Services Technology/Substance Abuse courses may be used in applying for certification by the North Carolina Substance Abuse Professional Practice Board.

All Human Services Programs articulate with the Queens University of Charlotte degree in Human and Community Services. Many courses are also accepted at Gardner Webb and Wingate Universities.

Notes
Students must receive a final grade of “C” or higher in all DDT, HSE, SAB and GRO courses in order to receive credit toward a Human Services Technology degree or certificate.

Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is fall through spring semester, second year.

A suggested course sequence list is available from the program chair.

Contact Information
The Developmental Disabilities Program is in the Nursing, Human Services and Early Childhood Division. For more information call 704.330.6144, 704.330.6496, or visit our website at www.cpcc.edu/nursing_human_services/.

General Education Requirements
| ENG 111 | Expository Writing | 3.0 |
| ENG 114 | Professional Research & Reporting | 3.0 |
| Select one of the following: | | |
| COM 110 | Introduction to Communication | 3.0 |
| COM 120 | Intro to Interpersonal Communication | |
| COM 231 | Public Speaking | |
| Select 3 credits of the following: | | |
| ART 111 | Art Appreciation | 3.0 |
| ART 114 | Art History Survey I | |
| ART 115 | Art History Survey II | |
| ART 117 | Non-Western Art History | |
| DAN 110 | Dance Appreciation | |
| DAN 211 | Dance History I | |
| DAN 212 | Dance History II | |
| DRA 111 | Theatre Appreciation | |
| DRA 112 | Literature of the Theatre | |
| DRA 122 | Oral Interpretation | |
| HUM 130 | Myth in Human Culture | |
| HUM 160 | Introduction to Film | |
| HUM 211 | Humanities I | |
| HUM 212 | Humanities II | |
| ENG 231 | American Literature I | |
| ENG 232 | American Literature II | |
| ENG 241 | British Literature I | |
| ENG 242 | British Literature II | |
| ENG 251 | Western World Literature I | |
| ENG 252 | Western World Literature II | |
| MUS 110 | Music Appreciation | |
| MUS 112 | Introduction to Jazz | |
| MUS 213 | Opera and Musical Theatre | |
| PHI 220 | Western Philosophy I | |
| PHI 221 | Western Philosophy II | |
| PHI 230 | Introduction to Logic | |
| REL 110 | World Religions | |
| REL 211 | Introduction to Old Testament | |
| REL 212 | Introduction to New Testament | |
| REL 221 | Religion in America | |
| MUS 210 | History of Rock Music | |
| REL 111 | Eastern Religions | |
| MAT 115 | Mathematical Models | 3.0 |
| or MAT 140 | Survey of Mathematics | |
| or SOC 210 | Introduction to Sociology | 3.0 |
| or SOC 225 | Social Diversity | |

Major Requirements
| HSE 110 | Introduction to Human Services | 3.0 |
| HSE 112 | Group Process I | 2.0 |
| HSE 123 | Interviewing Techniques | 3.0 |
| PSY 150 | General Psychology | 3.0 |
| HSE 125 | Counseling | 3.0 |
| HSE 210 | Human Services Issues | 2.0 |
| HSE 225 | Crisis Intervention | 3.0 |
| PSY 241 | Developmental Psychology | 3.0 |
| SOC 213 | Sociology of the Family | 3.0 |
| COE 111 | Co-Op Work Experience I | 1.0 |
| COE 115 | Work Experience Seminar I | 1.0 |
| DDT 110 | Developmental Disabilities | 3.0 |
| DDT 120 | Teaching Developmental Disabled | 3.0 |
| DDT 210 | DDT Health Issues | 3.0 |
| DDT 220 | Program Planning Process | 3.0 |
| SAB 110 | Substance Abuse Overview | 3.0 |
| COE 121 | Co-Op Work Experience II | 1.0 |
| COE 125 | Work Experience Seminar II | 1.0 |
| CIS 111 | Basic PC Literacy | 2.0 |
| HSE 120 | Interpersonal Relations | 3.0 |
| GRO 120 | Gerontology | 3.0 |
| DDT 230 | Supported Employment | 3.0 |
| DDT 240 | Aging Lifelong Disability | 3.0 |

Total Credits 76
Human Services Technology Substance Abuse Concentration (A4538E)

The Human Services Technology/Substance Abuse program is designed to prepare students for a career in the field of substance abuse and assist them in the process of State Certification/Licensure. The program also enables students to transfer their credits earned and pursue a four-year degree.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency; the physiological, psychological and sociological aspects of addiction; the 12 core functions of a substance abuse professional; the assessment, diagnosing and treatment of substance abuse; group techniques; family dynamics of addiction; the ethical and legal aspects involved; a basic overview of co-occurring disorders; and a two-semester internship working in the field.

Graduates who continue to complete their certification/licensure through the North Carolina State Professional Practice Board qualify for positions as substance abuse counselors, prevention and education specialist, DWI educators and counselors, residential and halfway house counselors, case managers, community-based program managers and criminal justice addiction professionals.

Degree Awarded

The Associate in Applied Science degree - Human Services Technology with a concentration in Substance Abuse is awarded by the College upon completion of this program.

Program Accreditation

Human Services Technology Substance Abuse courses are approved by the North Carolina Substance Abuse Professional Practice Board (NCSAPPB) and accepted toward fulfillment of education credits for both the CSAC and LCAS credentials. The two semesters of internship (COE 111/COE 115 & COE 121/COE 125) which are part of the program also meet NCSAPPB requirements for the 300-hour practicum toward certification/licensure. Human Services Technology Substance Abuse courses are also accepted by NAADAC: the Association for Addiction Professionals for certification/licensure. All Human Services Programs, including the Substance Abuse Program, articulate with Queens University, Gardner Webb University, Wingate University and Pfeiffer University Human Services/Human Relations Programs.

Admissions

• Complete required CPCC application.
• Submit high school transcripts and any college transcripts.
• Request college transcripts to be evaluated for transfer credit.
• Take any required placement tests.
• See Program Chair for advising of course sequence and registration advisement.

Notes

Students must receive a final grade of “C” or higher in all SAB, HSE, DDT and GRO courses in order to receive credit toward a Human Services Technology degree or certificate. A GPA of 2.5 or higher is required for a student to begin their internship. Internships in a variety of community agencies enable students to gain specialized experience to parallel their classroom work. The duration of the internship is comprised of two semesters, with a minimum of 320 hours. A suggested course sequence is available from the Program Chair.

Contact Information

The Substance Abuse Program is in the Health and Human Services Division. For more information, call 704.330.6749 or visit our website at http://www.cpcc.edu/nursing_human_services/substance-abuse/.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>or SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 110</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 112</td>
<td>Group Process I</td>
<td>2.0</td>
</tr>
<tr>
<td>HSE 123</td>
<td>Interviewing Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 125</td>
<td>Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 210</td>
<td>Human Services Issues</td>
<td>2.0</td>
</tr>
<tr>
<td>HSE 225</td>
<td>Crisis Intervention</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>or PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 115</td>
<td>Work Experience Seminar I</td>
<td>1.0</td>
</tr>
<tr>
<td>SAB 110</td>
<td>Substance Abuse Overview</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 120</td>
<td>Intake and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 125</td>
<td>SA Case Management</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 135</td>
<td>Addictive Process</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 240</td>
<td>Sab Issues in Client Serv</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 210</td>
<td>Sub Abuse Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 220</td>
<td>Group Techniques/Therapy</td>
<td>3.0</td>
</tr>
<tr>
<td>SAB 230</td>
<td>Family Therapy</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 125</td>
<td>Work Experience Seminar II</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 120</td>
<td>Interpersonal Relations</td>
<td></td>
</tr>
<tr>
<td>DDT 110</td>
<td>Developmental Disabilities</td>
<td>2.0</td>
</tr>
<tr>
<td>GRO 120</td>
<td>Gerontology</td>
<td></td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 76

Back to Top

No diplomas offered.

- Human Services Technology Certificate with a Specialization in Human Services Technology (C45380-C1)
- Human Services Technology Certificate with a Specialization in Case Management (C45380-C2)
- Human Services Technology Certificate with a Specialization in Working with At-Risk Youth (C45380-C3)
- Human Services Technology with a Specialization in Developmental Disabilities (C4538A-C1)
- Human Services Technology with a Specialization in Supported Employment (C4538A-C2)
- Human Services Technology Certificate with a Specialization in Substance Abuse (C4538E-C2)
- Human Services Technology Certificate with a Specialization in Substance Abuse Counseling (C4538E-C3)

**Human Services Technology Certificate with a Specialization in Human Services Technology (C45380)**

Students must receive a final grade of “C” or higher in all DDT, HSE, SAB, and GRO courses in order to receive credit toward a Human Services Technology degree or certificate.

**Human Services Technology Certificate with a Specialization in Human Services Technology (C45380-C1)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 110</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 112</td>
<td>Group Process I</td>
<td>2.0</td>
</tr>
<tr>
<td>HSE 123</td>
<td>Interviewing Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 210</td>
<td>Human Services Issues</td>
<td>2.0</td>
</tr>
<tr>
<td>HSE 225</td>
<td>Crisis Intervention</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 115</td>
<td>Work Experience Seminar I</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits 15

Back to Top

**Human Services Technology Certificate with a Specialization in Case Management (C45380-C2)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 110</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 123</td>
<td>Interviewing Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 210</td>
<td>Human Services Issues</td>
<td>2.0</td>
</tr>
<tr>
<td>HSE 225</td>
<td>Crisis Intervention</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 220</td>
<td>Case Management</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 115</td>
<td>Work Experience Seminar I</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total Credits 16

Back to Top

**Human Services Technology Certificate with a Specialization in Working with At-Risk Youth (C45380-C3)**

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 110</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 225</td>
<td>Crisis Intervention</td>
<td>3.0</td>
</tr>
<tr>
<td>HSE 227</td>
<td>Children &amp; Adolescents in Crisis</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 115</td>
<td>Work Experience Seminar I</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Back to Top
Developmental Disabilities Certificates (C4538A)

Students must receive a final grade of “C” or higher in all DDT, HSE, SAB and GRO courses in order to receive credit toward a Human Services Technology degree or certificate.

Human Services Technology with a Specialization in Developmental Disabilities (C4538A-C1)

This certificate is designed to provide the student with a concentrated course of study in the field of developmental disabilities. Upon completion of the six courses, a certificate will be awarded by the college. This certificate may be applied toward the Associate Degree in Human Services Technology with a concentration in Developmental Disabilities.

Substance Abuse Certificates (C4538E)

Students must receive a final grade of “C” or higher in all DDT, HSE, SAB and GRO courses in order to receive credit toward a Human Services Technology degree or certificate. A GPA of 2.5 or higher is required for a student to begin their internship.

The certificates are designed to provide the student with a concentrated course of study in the field of Substance Abuse. Selection of certificate choice depends on the students specific career goals. Upon completion of these courses a certificate will be awarded by the college. This certificate may be applied towards the Associate Degree in Human Services Technology with a concentration in Substance Abuse and/or may be used towards the initial or renewal of Certification/Licensure through the North Carolina Substance Abuse Professional Practice Board or NAADAC, the Association for Addiction Professionals.

Notes

It is strongly recommend that certificate students who are interested in a career as substance abuse professional take ALL of the substance abuse (SAB) courses, not just the ones required in a particular certificate, to fully prepare for clinical practice, meet Board training requirements and prepare for the Board credentialing exam.

Contact Information

For more information, call 704.330.6749 or visit our website at http://www.cpcc.edu/nursing_human_services/substance-abuse/.

Human Services Technology Certificate with a Specialization in Substance Abuse Counseling (C4538E-C3)

This certificate is designed to provide the student with a concentrated course of study in the field of Substance Abuse with a strong emphasis on clinical applications. Upon completion of the courses, a certificate of study will be awarded by the college. Note that this certificate includes two semesters of internship.

Substance Abuse Overview

Intake and Assessment

SA Case Management

Sub Abuse Counseling

Family Therapy

Co-Op Work Experience I
### Interior Design

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices and aesthetic principles.

Curriculum content includes residential and non-residential interior design, architectural drafting, computer-aided design and universal design. Also included are basic design, history of interiors and furnishings, color theory, products, business practices, graphic presentations and general education courses.

Graduates should qualify for a variety of jobs including residential and commercial interior design, set design, showroom design and sales positions for furniture, textiles and accessories and all businesses dealing with interiors.

#### General Information

Increasingly, our interior living and working spaces are being developed for a more sophisticated society. The Interior Design program at CPCC prepares students to design the interior spaces of today and tomorrow using the best of today’s technology.

#### Interior Design (A30220)

**Degree Awarded**

The Associate in Applied Science Degree - Interior Design is awarded by the College upon completion of this program.

#### Admissions

- A high school diploma or equivalent is required. GED High School Equivalent and high school diploma classes are available from CPCC.
- CPCC placement tests are required in English and mathematics. Developmental Studies in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- A counseling/orientation appointment follows placement testing.
- Contact the Program chair before entering program.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

#### Contact Information

For more information, call 704.330.6437 or 704.330.6548, or visit our website at http://arts.cpcc.edu/academics/interior-design/.

### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>or ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 125</td>
<td>Graphic Presentation I</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 135</td>
<td>Principles and Elements of Design I</td>
<td>4.0</td>
</tr>
<tr>
<td>DES 210</td>
<td>Business Practices for Interior Design</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 225</td>
<td>Textiles/Fabrics</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 230</td>
<td>Residential Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 235</td>
<td>Products</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 220</td>
<td>Prin of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 240</td>
<td>Commercial/Contract Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 255</td>
<td>History of Interiors and Furnishings I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ARC 120</td>
<td>Interior Design-Residential</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 231</td>
<td>Residential Design II</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 241</td>
<td>Commercial/Contract Design II</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 275</td>
<td>Furniture Design &amp; Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 133</td>
<td>Construction Document Analysis</td>
<td>2.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 280</td>
<td>Codes &amp; Standards/Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>or ARC 131</td>
<td>Building Codes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Technical Electives

Select 4 credits of the following: 4.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 115</td>
<td>Color Theory</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 257</td>
<td>History of American Homes</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 160</td>
<td>Residential Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td>2.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 220</td>
<td>Advanced Architectural CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 221</td>
<td>Architectural 3-D CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 262</td>
<td>Architectural Animation &amp; Video</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 265</td>
<td>Lighting/Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 210</td>
<td>Intro to Sustain Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits** 72

### Residential Interior Decoration Diploma (D30220-D1)

The curriculum is designed to prepare students for a variety of job opportunities in the field of residential interior decorating. The focus of
the studies is technical knowledge, professional practices and aesthetic principles.

Curriculum content includes residential interior design, architectural drafting and computer-aided drafting/design. Also included are basic elements of design, history of interiors and furnishings, color theory, graphic presentation, business practices and general education courses.

Graduates should qualify for a variety of jobs including residential interior design, set design, showroom design and sales positions for furniture, textiles and accessories.

Careful planning should allow the student to complete the diploma in three full-time semesters or six to seven part-time semesters.

For more information, please visit our website at http://arts.cpcc.edu/academics/interior-design/.

### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 125</td>
<td>Graphic Presentation I</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 135</td>
<td>Principles and Elements of Design I</td>
<td>4.0</td>
</tr>
<tr>
<td>DES 210</td>
<td>Business Practices for Interior Design</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 220</td>
<td>Prin of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>DES 255</td>
<td>History of Interiors and Furnishings I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 120</td>
<td>Interior Design-Residential</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>DES 230</td>
<td>Residential Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARC 114</td>
<td>Architectural CAD</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Technical Electives

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DES 257</td>
<td>History of American Homes</td>
</tr>
<tr>
<td>DES 115</td>
<td>Color Theory</td>
</tr>
<tr>
<td>DES 225</td>
<td>Textiles/Fabrics</td>
</tr>
<tr>
<td>DES 275</td>
<td>Furniture Design &amp; Construction</td>
</tr>
</tbody>
</table>

### General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Total Credits** 39

### Interpreter Education

The Interpreter Education curriculum prepares individuals to work as entry-level sign language interpreters who will provide communication access for people who are Deaf and hard of hearing in interview and interactive settings. In addition, this curriculum provides in-service training for working interpreters who want to upgrade their skills.

Students entering the program who already have ASL skills as demonstrated by both the ASL placement tests and a SLPI: ASL level of 50 (Intermediate) are able to complete the program in four semesters of full-time study. Students entering the program with no experience in ASL must complete ASL foundational courses prior to enrolling into the Interpreter Education program courses.

Coursework includes the acquisition of American Sign Language (ASL); grammar, structure and socio-linguistic properties, cognitive processes associated with interpretation between ASL and English; the structure and character of the Deaf community; and acquisition of consecutive and simultaneous interpreting skills.

Entry-level jobs for professional interpreters are available in educational systems or a variety of community settings. Individuals may choose from part-time, full-time, or self-employment/ free-lance positions, or apply American Sign Language skills to other human service related areas.

### Interpreter Education (A55300)

**Degree Awarded**

The Associate in Applied Science degree - Interpreter Education is awarded by the College upon completion of this program.

### Admissions

- A high school diploma or equivalent is required.
- CPCC placement tests are required in English, reading and mathematics.
- Students must take and pass ENG 111 with a grade of “C” or better, successfully pass a credit by exam, or transfer an ENG 111 equivalent course.
- Students must have a SLPI (Sign Language Proficiency Interview): ASL rating of 50 (Intermediate) or higher in order to major in the Interpreter Education program.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Students who have taken an ASL course from another college or university and wish to take an ASL placement test to be placed in higher level of ASL courses, may visit http://www.cpcc.edu/interpreter_education for more information. Students who have not taken an ASL course for at least one year must take the ASL placement test to see if they still have skills and knowledge ready for next level of ASL course.

A student must receive a final grade of “C” or higher in all ASL, IPP, or COE courses in order to receive credit for that course toward an Interpreter Education A.A.S. (A55300) degree.

There is an articulation agreement between the CPCC Interpreter Education program and the Regis University’s bachelor’s degree in interpreting. Students may take up to 90 credit hours of courses at CPCC.
and take at least 30 credit hours of courses, online or on-site, at Regis University in Colorado.

**Contact Information**

The Interpreter Education program is in the Professional Careers Division. For more information about the interpreting degree or interpreting courses, contact program co-chair, Martha Ingel, at martha.ingel@cpcc.edu. Additional information is also available on the program website at www.cpcc.edu/interpreter_education. For more information about ASL courses, ASL placement testing or the SLPI: ASL, contact program co-chair James Wilson at james.wilson@cpcc.edu.

### General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
</tbody>
</table>

### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 111</td>
<td>Elementary ASL I</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 112</td>
<td>Elementary ASL II</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 115</td>
<td>Work Experience Seminar I</td>
<td>1.0</td>
</tr>
<tr>
<td>IPP 111</td>
<td>Introduction to Interpretation</td>
<td>3.0</td>
</tr>
<tr>
<td>IPP 112</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 250</td>
<td>Linguistics of American Sign Language</td>
<td>3.0</td>
</tr>
<tr>
<td>IPP 152</td>
<td>ASL/English Translation</td>
<td>3.0</td>
</tr>
<tr>
<td>IPP 161</td>
<td>Consecutive Interpreting</td>
<td>5.0</td>
</tr>
<tr>
<td>IPP 221</td>
<td>Simultaneous Interpreting I</td>
<td>5.0</td>
</tr>
<tr>
<td>IPP 153</td>
<td>Introduction to Discourse Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>IPP 222</td>
<td>Simultaneous Interpreting II</td>
<td>5.0</td>
</tr>
<tr>
<td>IPP 240</td>
<td>Ethical Standards and Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
<td>1.0</td>
</tr>
<tr>
<td>COE 125</td>
<td>Work Experience Seminar II</td>
<td>1.0</td>
</tr>
<tr>
<td>ASL 181</td>
<td>ASL Lab 1</td>
<td>1.0</td>
</tr>
<tr>
<td>ASL 182</td>
<td>ASL Lab 2</td>
<td>1.0</td>
</tr>
<tr>
<td>ASL 211</td>
<td>Intermediate ASL I</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 281</td>
<td>ASL Lab 3</td>
<td>1.0</td>
</tr>
<tr>
<td>ASL 212</td>
<td>Intermediate ASL II</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 282</td>
<td>ASL Lab 4</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 221</td>
<td>Advanced American Sign Language I</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 222</td>
<td>Advanced American Sign Language II</td>
<td></td>
</tr>
<tr>
<td>IPP 130</td>
<td>Analytical Skills for Interpreting</td>
<td></td>
</tr>
<tr>
<td>ASL 151</td>
<td>Numbers and Fingerspelling</td>
<td></td>
</tr>
<tr>
<td>IPP 245</td>
<td>Educational Interpreting Issues</td>
<td></td>
</tr>
<tr>
<td>ASL 225</td>
<td>Global Deaf Community</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ASL 252</td>
<td>American Sign Language Classifiers</td>
<td></td>
</tr>
<tr>
<td>ASL 253</td>
<td>American Sign Language Non-Manual Signals</td>
<td></td>
</tr>
<tr>
<td>ASL 260</td>
<td>American Sign Language Semantics</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>76</strong></td>
</tr>
</tbody>
</table>

No diplomas offered.

No certificates offered.

**Lateral Entry Teacher**

The lateral entry courses are designed for already-employed teachers, as well as prospective teachers seeking employment, who have been evaluated by the Regional Alternative Licensing Center (RALC) and have a plan of study to complete the licensure requirements.

There are 10 pedagogical competencies that the North Carolina State Board of Education requires for it to issue a license in some teaching areas. CPCC offers four of these courses; the others can be obtained from UNC-Charlotte and other universities. The Lateral Entry Teacher Certificate is not a substitute for a valid teaching license.

No degrees offered.

No diplomas offered.

**Lateral Entry Teacher Certificate (C55430)**

**Admissions**

The program requires that you submit a copy of your transcript and your plan of study from the RALC to the program coordinator.

**Contact Information**

For more information call 704.330.4374 or visit www.cpcc.edu/teachersed.

**Manufacturing Technology**

The Manufacturing Technology curriculum provides an introduction to the principles and practices of manufacturing in today’s global marketplace. The student will be exposed to valuable high-tech concepts applicable in a variety of industries such as plastics, metals, furniture, textiles and electronics. Students will gain real-world knowledge in manufacturing management practices, manufacturing materials and processes, research and development and quality assurance.

Coursework will include machining processes, CAD/CAM, CNC principles and other computerized production techniques.

Graduates should qualify for employment as a manufacturing technician, quality assurance technician, CAD/CAM technician, team leader, or research and development technician. The student will be able to advance in the workplace and develop with new technologies.

**Manufacturing Technology (A50320)**

**Degree Awarded**

The Associate in Applied Science Degree - Manufacturing Technology is awarded by the College upon completion of this program.

**Admissions**

- A high school diploma or equivalent is required. High school students preparing for this program should complete courses in algebra and geometry. Skills and proficiencies should be developed in writing, computer literacy and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Developmental Studies mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

**Notes**

The Manufacturing Technology curriculum at Central Piedmont Community College is a comprehensive program featuring extensive hands-on instruction in practical application of both fundamental and highly specialized manufacturing technology principles. Students advance from basic courses to specialized manufacturing, industrial and mechanical technology courses that provide concentrated study in the practical application of project management encountered in today’s modern manufacturing facilities.

Completion of this program requires that students use college-level algebra, trigonometry and physics in applying scientific principles to solve problems often encountered in a production environment.

**Contact Information**

The Manufacturing Technology program is in the Engineering Technologies Division. For additional information, visit www.cpcc.edu/et or call 704.330.6614.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td><strong>Select 3 credits of the following:</strong></td>
<td><strong>3.0</strong></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
</tbody>
</table>
## College-Level Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
</tr>
</tbody>
</table>

### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>ISC 132</td>
<td>Manufacturing Quality Control</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 180</td>
<td>Engineering Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 111E</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAC 151</td>
<td>Machining Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td>or HYD 110</td>
<td>Hydraulics/Pneumatics I</td>
<td></td>
</tr>
<tr>
<td>MAC 152</td>
<td>Advanced Machining Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>or MAT 122</td>
<td>Algebra/Trigonometry</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Electives

Select 18 credits of the following: 18.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
</tr>
<tr>
<td>CSC 139</td>
<td>Visual BASIC Programming</td>
</tr>
<tr>
<td>DFT 154</td>
<td>Intro to Solid Modeling</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Blueprint Reading-Machining I</td>
</tr>
<tr>
<td>MAC 132</td>
<td>Blueprint Reading-Machining II</td>
</tr>
<tr>
<td>WLD 112</td>
<td>Basic Welding Processes</td>
</tr>
<tr>
<td>MEC 260</td>
<td>Fundamentals of Machine Design</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
</tr>
<tr>
<td>MAC 131</td>
<td>Blueprint Reading-Machining I</td>
</tr>
<tr>
<td>MAC 132</td>
<td>Blueprint Reading-Machining II</td>
</tr>
<tr>
<td>WLD 112</td>
<td>Basic Welding Processes</td>
</tr>
<tr>
<td>MEC 130</td>
<td>Mechanisms</td>
</tr>
<tr>
<td>MEC 155</td>
<td>Environmentally Benign Manufacturing</td>
</tr>
<tr>
<td>ISC 120</td>
<td>Industrial Ecology</td>
</tr>
<tr>
<td>ISC 220</td>
<td>Lean Manufacturing</td>
</tr>
<tr>
<td>ELC 117</td>
<td>Motors and Controls</td>
</tr>
</tbody>
</table>

Total Credits: 71

No diplomas offered.

No certificates offered.

### Mechanical Engineering Technology

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians...
assist in design, development, testing, process design and improvement and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and hands-on application of engineering principles.

In addition to coursework in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics and physics, students will study computer applications, critical thinking, planning and problem solving and oral and written communications.

Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME and NICET.

Mechanical Engineering Technology (A40320)

Degree Awarded
The Associate in Applied Science Degree - Mechanical Engineering Technology is awarded by the College upon completion of this program. This degree is accepted at some colleges and universities as the first two years of a 2 + 2 bachelor’s-level engineering technology program.

Admissions
• A high school diploma or equivalent is required. High schools students preparing for an engineering technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
• Placement tests in English and mathematics determine the entry-level courses that match individual needs. Developmental Studies English and mathematics courses are available for students to build basic skills and knowledge.
• A counseling/orientation appointment follows placement testing.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation
The Mechanical Engineering Technology Program at CPCC is accredited by the Engineering Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET), http://www.abet.org.

Notes
The Mechanical Engineering Technology curriculum at Central Piedmont Community College features extensive use of CAD/CAM systems in the practical applications of both fundamental and highly specialized mechanical engineering technology principles. Students advance from basic courses to specialized mechanical engineering technology courses that furnish concentrated study in the practical application of state-of-the-art technological knowledge and skills needed in today’s high technology industry.

Two curriculum tracks are available: the Mechanical Design track and the Manufacturing Support track. The Mechanical Design Track is structured to enable the graduate to work in conjunction with mechanical engineers in the selection of mechanical components. The Manufacturing Support Track is designed to enable the graduate work in liaison with manufacturing engineers in support of a production facility.

Completion of the program requires that students use college-level algebra, trigonometry and physics in the application of scientific principles to technical problems.

Contact Information
The Mechanical Engineering Technology Program is in the Engineering Technologies Division. For additional information, visit www.cpcc.edu/et or call 704.330.6614.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 132</td>
<td>Physics-Electricity &amp; Magnetism</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
</tr>
</tbody>
</table>
### College-Level Programs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
</tr>
</tbody>
</table>

### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 250</td>
<td>Statics &amp; Strength of Materials</td>
<td>5.0</td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 180</td>
<td>Engineering Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Mechanical Design/Manufacturing Support Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT 154</td>
<td>Intro to Solid Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 267</td>
<td>Thermal Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 151</td>
<td>CAD I</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 270</td>
<td>Machine Design</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 275</td>
<td>Engineering Mechanisms</td>
<td>3.0</td>
</tr>
<tr>
<td>ATR 112</td>
<td>Introduction to Automation</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>2.0</td>
</tr>
<tr>
<td>ISC 132</td>
<td>Manufacturing Quality Control</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Technical Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>ATR 112</td>
<td>Introduction to Automation</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
</tr>
<tr>
<td>CSC 139</td>
<td>Visual BASIC Programming</td>
</tr>
<tr>
<td>DDF 252</td>
<td>Advanced Solid Modeling</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
</tr>
<tr>
<td>ISC 132</td>
<td>Manufacturing Quality Control</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
</tr>
<tr>
<td>MEC 293</td>
<td>Selected Topics in Mechanical Engr. Tech Engineering Technology</td>
</tr>
<tr>
<td>PLA 110</td>
<td>Introduction to Plastics</td>
</tr>
<tr>
<td>DFT 154</td>
<td>Intro to Solid Modeling</td>
</tr>
<tr>
<td>MEC 267</td>
<td>Thermal Systems</td>
</tr>
<tr>
<td>MEC 270</td>
<td>Machine Design</td>
</tr>
<tr>
<td>MEC 275</td>
<td>Engineering Mechanisms</td>
</tr>
<tr>
<td>EGR 150</td>
<td>Intro to Engineering</td>
</tr>
<tr>
<td>DFT 153</td>
<td>CAD III</td>
</tr>
<tr>
<td>MEC 155</td>
<td>Environmentally Benign Manufacturing</td>
</tr>
<tr>
<td>ISC 120</td>
<td>Industrial Ecology</td>
</tr>
<tr>
<td>ISC 220</td>
<td>Lean Manufacturing</td>
</tr>
</tbody>
</table>

### TOTAL CREDITS 75

- Concepts of Mechanical Design Diploma (D40320-D1)
- Concepts of Manufacturing Support Diploma (D40320-D2)
- Concepts of Basics of Manufacturing Diploma (D40320-D3)

### Mechanical Engineering Technology Diplomas (D40320)

#### Concepts of Mechanical Design Diploma (D40320-D1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### General Education Requirements

#### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 132</td>
<td>Manufacturing Quality Control</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### TOTAL CREDITS 36

Back to Top
Concepts of Manufacturing Support Diploma (D40320-D2)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>ATR 112</td>
<td>Introduction to Automation</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 132</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 42

Back to Top

Concepts of Basics of Manufacturing Diploma (D40320-D3)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 111</td>
<td>Introduction to Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 132</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 211</td>
<td>Production Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 36

Back to Top

Mechanical Engineering Certificates (C40320)

Mechanical Engineering Certificate with a Specialization in Fundamentals of Manufacturing (C40320-C1)

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 16

Mechanical Engineering Certificate Specialization in Mechanical CAD Operations (C40320-C2)

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 121</td>
<td>Introduction to GD&amp;T</td>
<td>2.0</td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>DFT 154</td>
<td>Intro to Solid Modeling</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 13

Back to Top

Mechatronics Engineering Technology

The Mechatronics Engineering Technology curriculum prepares graduates for employment as technicians in engineering fields requiring electrical, mechanical and computer skills. Mechatronics Engineering technicians assist in designing, developing, testing, process designing and improving, and troubleshooting and repairing complex engineering and manufacturing systems. Emphasis is placed on the integration of theory and hands-on application of engineering principles.

In addition to coursework in engineering fundamentals, basic manufacturing and electricity, computers, mathematics and physics, students will study critical thinking, planning and problem solving, and oral and written communications.

Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by applying to organizations such as ASQG, SME, PMMI and NICET.
Mechatronics Engineering Technology (A40350)

Degree Awarded
The Associate in Applied Science Degree-Mechatronics Engineering Technology is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent is required. High schools students preparing for an engineering technology program should complete courses in algebra, geometry and advanced mathematics. Skills and proficiencies should be developed in writing, computer literacy and science.
• Placement tests in English and mathematics determine the entry-level courses that match individual needs. Developmental Studies English and mathematics courses are available for students to build basic skills and knowledge.
• A counseling/orientation appointment follows placement testing.
• Many courses have prerequisites or corequisites; check the Courses section for details.

Notes
The Mechatronics Engineering Technology curriculum at Central Piedmont Community College provides a basic background in mechanical, electrical and computer skills and – depending on the track – specialized instruction in each of these areas. Topics include CAD, basic computer skills, safety, automation, programmable logic controllers, instrumentation, hydraulics and pneumatics, mechanical drives, motors and controls, and basic electricity. The latest equipment is used to provide skills in these areas.

Two curriculum tracks are available: the Mechanical track and the Electrical track. The Mechanical Track is structured to enable the graduate to focus on the mechanical aspects of a manufacturing or designed system while still having a good understanding of its electrical function. The Electrical Track provides the opposite – a focus on the electrical and control aspects with a good understanding of the mechanical components.

Completion of the program requires that students use college-level algebra, trigonometry and physics in the application of scientific principles to technical problems.

Contact Information
The Mechatronics Engineering Technology Program is in the Engineering Technologies Division. For additional information, visit www.cpcc.edu/et or call 704.330.6557.

General Education Requirements
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Mathematics I</td>
<td>3.0</td>
</tr>
<tr>
<td>or MAT-171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Mathematics II</td>
<td>3.0</td>
</tr>
<tr>
<td>or MAT-172</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATR 112</td>
<td>Introduction to Automation</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Track
Complete one of two major tracks (See below) 12.0

Electrical Track
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 133</td>
<td>Circuit Analysis II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 136</td>
<td>Electrical Machines II</td>
<td>4.0</td>
</tr>
<tr>
<td>EIC 137</td>
<td>Systems and Design Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>or DFT 154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>or PHY 151</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Track
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td>2.0</td>
</tr>
<tr>
<td>ELC 131</td>
<td>Circuit Analysis II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 133</td>
<td>Digital Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
<tr>
<td>ELM 270</td>
<td>Machine Design</td>
<td>4.0</td>
</tr>
<tr>
<td>or MEC 270</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

No diplomas offered.

Mechatronics Engineering Technology Certificates (C40350)

Mechatronics Engineering Technology Certificate Specialization in Mechatronics (C40350-C1)

Major Requirements
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELC 131</td>
<td>Circuit Analysis I</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 136</td>
<td>Electrical Machines II</td>
<td>4.0</td>
</tr>
<tr>
<td>ELM 260</td>
<td>Prog Logic Controllers</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits

No diplomas offered.
Mechatronics Engineering Technology Certificate Specialization in Mechatronics Engineering Pathway (C40350-C2)

This certificate is available to students enrolled in Career & College Promise.

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td>2.0</td>
</tr>
<tr>
<td>ISC 112</td>
<td>Industrial Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC 130</td>
<td>Mechanisms</td>
<td>3.0</td>
</tr>
<tr>
<td>ELC 131</td>
<td>Circuit Analysis I</td>
<td>4.0</td>
</tr>
<tr>
<td>ELC 135</td>
<td>Electrical Machines</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 14

Medical Assisting

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical and laboratory procedures.

Coursework includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall and Spring semesters.

Medical Assisting (A45400)

Degree Awarded

A Degree in Medical Assisting is awarded by the College upon completion of the degree requirements.

Admissions

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Complete any required Developmental classes with a “C” or better.
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses in the scheduled sequence.
- Many courses have prerequisites or co-requisites; check the Courses page for details.
- A physical examination (including a drug screen) documenting the applicant’s ability to complete all program requirements is required.
- Students must demonstrate word processing proficiency including keying (typing) at an acceptable speed with accurate level and document formatting. Typing speed required is at least 30 wpm. If a student cannot demonstrate word processing proficiency, OST 131 is required.
- Students must demonstrate basic computer competencies through coursework or testing. The division director of Computer Office and Information Systems will determine equivalence and competencies. CIS 110 is required if coursework is needed to demonstrate competencies.

Notes

- ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.
- Progression in this program is dependent on satisfying course prerequisites, corequisites and maintaining a grade of “C” or better for all courses in the curriculum.
- Students must have current CPR Certification prior to the Practicum (MED 260).
- In addition to tuition, lab fees and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination including immunizations and drug screening and a CPCC Medical Assisting pin.
- In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information

The Medical Assisting program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/medical-assisting. If further information is needed contact the Program Chair at 704.330.6493.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>
College-Level Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
</tbody>
</table>

**Medical Assisting Diploma (D45400)**

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical and laboratory procedures. Coursework includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, medical transcription, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electrocardiography, supervised medication administration; and ethical/legal issues associated with patient care.

Graduates of CAAHEP accredited medical assisting programs may be eligible to sit for the American Association of Medical Assistants' Certification Examination to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments and hospitals. Advanced credits can be awarded toward completion of requirements for an Associate of Applied Science Degree in Medical Assisting. Individuals desiring a career in Medical Assisting should, if possible, take biology, mathematics, keyboarding and computer courses prior to entering the program. Students are admitted to the Medical Assisting program Fall and Spring semesters.

**Diploma Awarded**

A Diploma in Medical Assisting is awarded by the College upon completion of the diploma requirements. Graduates of this CAAHEP Accredited program may apply to take the certification examination administered by the American Association of Medical Assistants. Credits from this program can be applied toward requirements for the Associate of Applied Science Degree in Medical Assisting.

**Admissions**

- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts (if applicable).
- Take required placement tests.
- Complete any required Developmental classes with a “C” or better.
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses in the scheduled sequence.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
- A physical examination (including a drug screen) documenting the applicant’s ability to complete all program requirements is required.

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED 110</td>
<td>Orientation to Medical Assisting</td>
<td>1.0</td>
</tr>
<tr>
<td>MED 118</td>
<td>Medical Law and Ethics</td>
<td>2.0</td>
</tr>
<tr>
<td>MED 121</td>
<td>Medical Terminology I</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 122</td>
<td>Medical Terminology II</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 130</td>
<td>Administrative Office Procedures I</td>
<td>2.0</td>
</tr>
<tr>
<td>MED 131</td>
<td>Administrative Office Procedures II</td>
<td>2.0</td>
</tr>
<tr>
<td>MED 140</td>
<td>Examining Room Procedures I</td>
<td>5.0</td>
</tr>
<tr>
<td>MED 150</td>
<td>Laboratory Procedures I</td>
<td>5.0</td>
</tr>
<tr>
<td>MED 260</td>
<td>MED Clinical Practicum</td>
<td>5.0</td>
</tr>
<tr>
<td>MED 116</td>
<td>Introduction to Anatomy &amp; Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>MED 240</td>
<td>Examining Room Procedures II</td>
<td>5.0</td>
</tr>
<tr>
<td>MED 262</td>
<td>Clinical Perspectives</td>
<td>1.0</td>
</tr>
<tr>
<td>MED 270</td>
<td>Symptomatology</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 272</td>
<td>Drug Therapy</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 135</td>
<td>Principles of Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 232</td>
<td>Medical Insurance Coding</td>
<td>2.0</td>
</tr>
<tr>
<td>or MED 274</td>
<td>Diet Therapy/Nutrition</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 67
• Students must demonstrate word processing proficiency including keying (typing) at an acceptable speed with accurate level and document formatting. Typing speed required is at least 30 wpm. If a student cannot demonstrate word processing proficiency, OST 131 is required.

• Students must demonstrate basic computer competencies through coursework or testing. The division director of Computer Office and Information Systems will determine equivalence and competencies. CIS 110 is required if coursework is needed to demonstrate competencies.

• Students entering or re-entering the MED program must successfully re-take any MED courses taken five or more years prior to the entry or re-entry point.

Program Accreditation
The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org (http://www.caahep.org)) upon the recommendation of Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs 1361 Park Street Clearwater, FL 33756 727-210-2350 www.caahep.org (http://www.caahep.org).

Notes
• ACA 118 College Study Skills is highly recommended before or with entrance in the Medical Assisting program.

• Progression in this program is dependent on satisfying course prerequisites, corequisites and maintaining a grade of “C” or better for all courses in the curriculum.

• Students must have current CPR Certification prior to the Practicum (MED 260).

• In addition to tuition, lab fees and textbooks, this program has additional costs that include uniforms, lab coats, personal protective equipment, physical examination including immunizations and drug screening, application fees for sitting for the Certification Exam and a CPCC Medical Assisting pin.

• In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information
The Medical Assisting Program is in the Health Sciences Division. For more information, first go the website at http://www.cpcc.edu/health_sciences/medical-assisting. If further assistance is needed contact the Program Chair at 704.330.6493.

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
   COM 110 Introduction to Communication
   COM 120 Intro to Interpersonal Communication
   COM 231 Public Speaking

Major Requirements
MED 110 Orientation to Medical Assisting 1.0
MED 118 Medical Law and Ethics 2.0
MED 121 Medical Terminology I 3.0
MED 122 Medical Terminology II 3.0
MED 130 Administrative Office Procedures I 2.0
MED 131 Administrative Office Procedures II 2.0
MED 140 Examining Room Procedures I 5.0
MED 150 Laboratory Procedures I 5.0
MED 260 MED Clinical Practicum 5.0
MED 116 Introduction to Anatomy & Physiology 4.0
MED 262 Clinical Perspectives 1.0
MED 240 Examining Room Procedures II 5.0
MED 272 Drug Therapy 3.0

Total Credits 47

Medical Assisting Certificates (C45400)
Medical Assisting Certificate Specialization in Medical Assisting (C45400-C3)
This certificate is available to students enrolled in Career & College Promise.

Major Requirements
MED 121 Medical Terminology I 3.0
MED 116 Introduction to Anatomy & Physiology 4.0
MED 118 Medical Law and Ethics 2.0
MED 110 Orientation to Medical Assisting 1.0
MED 122 Medical Terminology II 3.0

Total Credits 13

Medical Laboratory Technology
The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology and transfusion medicine that may be used in the maintenance of health and diagnosis/treatment of disease.

Coursework emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance and reporting/recording and interpreting findings involving tissues, blood and body fluids.

Graduates are eligible to take examinations given by the ASCP Board of Certification. Employment opportunities include laboratories in hospitals, physician office laboratories, blood donation centers, industry and research facilities.

Medical Laboratory Technology (A45420)
Degree Awarded
The Associate in Applied Science Degree - Medical Laboratory Technology is awarded by the College upon completion of this program.

Admissions
• Complete a CPCC application.
• Submit high school transcripts as well as any college transcripts.
• Take required placement tests.
• Complete any required Developmental classes with a “C” or better.
• Complete at least high school level chemistry course with a “C” or better within the last 10 years.
• Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
• Complete and submit an MLT admissions packet.
• Complete the TEAS test and submit scores with admissions packet.
• A physical examination documenting the applicant’s ability to complete all program requirements is also required.
• Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
• Continued progression in the program requires a grade of “C” or better in each MLT prefix course each semester.
• Applicants must also present evidence of good physical and mental health.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation

Notes
In addition to tuition and textbooks, costs of this program include the following: uniforms, and professional white shoes, fluid-resistant lab coat, safety glasses/goggles, a physical examination including immunizations and drug screening.

The student must provide documentation of both health and accident insurance.

In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a N.C. state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information
The Medical Laboratory Technology program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/medical-laboratory-technology. If further assistance is needed contact the Program Chair at 704.330.6470.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLT 110</td>
<td>Introduction to Mlt</td>
<td>3.0</td>
</tr>
<tr>
<td>MLT 111</td>
<td>Urinalysis and Body Fluids</td>
<td>2.0</td>
</tr>
<tr>
<td>MLT 120</td>
<td>Hematology/Hemostasis I</td>
<td>4.0</td>
</tr>
<tr>
<td>MLT 130</td>
<td>Clinical Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>MLT 140</td>
<td>Introduction to Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>MLT 240</td>
<td>Special Clinical Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>CHM 130</td>
<td>General, Organic, &amp; Biochemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>CHM 130A</td>
<td>General, Organic, &amp; Biochemistry Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>MLT 251</td>
<td>MLT Practicum I</td>
<td>1.0</td>
</tr>
<tr>
<td>MLT 267</td>
<td>MLT Practicum II</td>
<td>8.0</td>
</tr>
<tr>
<td>MLT 277</td>
<td>MLT Practicum III</td>
<td>8.0</td>
</tr>
<tr>
<td>MLT 126</td>
<td>Immunology and Serology</td>
<td>2.0</td>
</tr>
<tr>
<td>MLT 127</td>
<td>Transfusion Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>MLT 220</td>
<td>Hematology/Hemostasis II</td>
<td>3.0</td>
</tr>
<tr>
<td>MLT 230</td>
<td>Clinical Chemistry II</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Medical Office Administration

This curriculum prepares individuals for employment in medical and other health care-related offices.

Coursework will include medical terminology, information systems, office management, medical coding, billing and insurance, legal and ethical issues, and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments.

Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies and other health care-related organizations.

Medical Office Administration (A25310)

Degree Awarded

The Associate in Applied Science degree - Medical Office Administration is awarded upon completion of this program.

Admissions

- Complete a CPCC application.
- Submit high school transcript and any college transcripts.
- Take required placement tests to determine placement in English (ENG) and mathematics (MAT) courses.
- Meet with counselor.
- Check the Course Descriptions section to determine course prerequisites or co-requisites.
- MED 122 requires permission from the Program Chair of the Medical Assisting program.

Contact Information

The Medical Office Administration Program is in the Professional Careers Division. For more information, call 704.330.6851. For more information, check our website at www.cpcc.edu/office_systems.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>
**College-Level Programs**

**ENG 241** British Literature I  
**ENG 242** British Literature II  
**ENG 251** Western World Literature I  
**ENG 252** Western World Literature II  
**HUM 130** Myth in Human Culture  
**HUM 160** Introduction to Film  
**HUM 211** Humanities I  
**HUM 212** Humanities II  
**MUS 110** Music Appreciation  
**MUS 112** Introduction to Jazz  
**MUS 210** History of Rock Music  
**MUS 213** Opera and Musical Theatre  
**PHI 220** Western Philosophy I  
**PHI 221** Western Philosophy II  
**PHI 230** Introduction to Logic  
**REL 110** World Religions  
**REL 111** Eastern Religions  
**REL 211** Introduction to Old Testament  
**REL 212** Introduction to New Testament  
**REL 221** Religion in America

### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 148</td>
<td>Medical Coding Billing &amp; Insurance</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 149</td>
<td>Medical Legal Issues</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 164</td>
<td>Text Editing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 289</td>
<td>Administrative Office Management</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 121</td>
<td>Medical Terminology I</td>
<td>3.0</td>
</tr>
<tr>
<td>MED 122</td>
<td>Medical Terminology II</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 243</td>
<td>Med Office Simulation</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 241</td>
<td>Med Ofc Transcription I</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>OST 236</td>
<td>Advanced Word Or Information Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 161</td>
<td>Introduction to Human Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 184</td>
<td>Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 115</td>
<td>College Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>or ACC 120</td>
<td>Principles of Financial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Electives

Select 5 credits of the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 112</td>
<td>Windows (TM)</td>
</tr>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>OST 233</td>
<td>Office Publications Design</td>
</tr>
<tr>
<td>OST 138</td>
<td>Advanced Software Applications</td>
</tr>
</tbody>
</table>

### Total Credits

76

---

No diplomas offered.  
No certificates offered.

**Non-Destructive Examination Technology**

The Non-destructive Examination (NDE) Technology curriculum prepares students for careers in non-destructive testing of materials, equipment and/or components. NDE test methods assess an object’s integrity without affecting its function. NDE is used in many industries, including construction, petrochemical, pulp and paper, power generation and aerospace.

Coursework includes ultrasonics, radiography, liquid penetrant, visual, magnetic particle and eddy current examination. Applied math and physics are an integral part of NDE and the curriculum. Students will gain knowledge of these methods through applied theory and hands-on applications.

The NDE curriculum meets the classroom and laboratory training requirements of ASNT’s SNT-TC-1A, permitting graduates the opportunity to obtain method specific NDE certification after a few months of on-the-job experience with their employer. Career opportunities exist in applied NDE, material sciences, technical sales and quality control in many industries.

Many of the courses are offered as Fastrack (any semester course offered in less than a 16 week semester). When creating students schedules, pay particular attention to the start/end - dates and times of the courses.

**Non-Destructive Examination Technology (A50350)**

### Degree Awarded

An Associate in Applied Science degree in Non-destructive Examination Technology is awarded by the College upon completion of this program.

### Admissions

- Completion of a high school diploma or equivalent is required.
- Many courses have prerequisites; check the Courses section for details.

### Contact Information

Non-Destructive Examination is in the Applied Technologies Division. For more information, call 704.330.4434 or 704.330.4413. See Non-Destructive Examination Technology program instructors or program counselors for suggested sequence of courses.

### General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>
Select 3 credits of the following:  
COM 110 Introduction to Communication  
COM 120 Intro to Interpersonal Communication  
COM 231 Public Speaking

Select 3 credits of the following:  
ART 111 Art Appreciation  
ART 114 Art History Survey I  
ART 115 Art History Survey II  
ART 116 Survey of American Art  
ART 117 Non-Western Art History  
DAN 110 Dance Appreciation  
DAN 211 Dance History I  
DAN 212 Dance History II  
DRA 111 Theatre Appreciation  
DRA 112 Literature of the Theatre  
DRA 122 Oral Interpretation  
ENG 231 American Literature I  
ENG 232 American Literature II  
ENG 241 British Literature I  
ENG 242 British Literature II  
ENG 251 Western World Literature I  
ENG 252 Western World Literature II  
HUM 130 Myth in Human Culture  
HUM 160 Introduction to Film  
HUM 211 Humanities I  
HUM 212 Humanities II  
MUS 110 Music Appreciation  
MUS 112 Introduction to Jazz  
MUS 210 History of Rock Music  
MUS 213 Opera and Musical Theatre  
PHI 220 Western Philosophy I  
PHI 221 Western Philosophy II  
PHI 230 Introduction to Logic  
REL 110 World Religions  
REL 111 Eastern Religions  
REL 211 Introduction to Old Testament  
REL 212 Introduction to New Testament  
REL 221 Religion in America

Select 3 credits of the following:  
ANT 210 General Anthropology  
ANT 220 Cultural Anthropology  
ANT 221 Comparative Cultures  
ECO 151 Survey of Economics  
ECO 251 Principles of Microeconomics  
ECO 252 Principles of Macroeconomics  
GEO 111 World Regional Geography  
HIS 111 World Civilizations I  
HIS 112 World Civilizations II  
HIS 131 American History I  
HIS 132 American History II  
POL 120 American Government  
POL 210 Comparative Government  
POL 220 International Relations  
PSY 150 General Psychology  
PSY 241 Developmental Psychology  
PSY 281 Abnormal Psychology  
SOC 210 Introduction to Sociology  
SOC 213 Sociology of the Family  
SOC 225 Social Diversity  
POL 110 Introduction to Political Science  
PSY 237 Social Psychology  
SOC 220 Social Problems

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDE 110</td>
<td>Intro to Nondestructive Examination</td>
<td>3.0</td>
</tr>
<tr>
<td>NDE 112</td>
<td>Materials and Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>NDE 121</td>
<td>Principles of Ultrasonic Exam UT</td>
<td>4.0</td>
</tr>
<tr>
<td>NDE 122</td>
<td>Angle Beam Examination</td>
<td>4.0</td>
</tr>
<tr>
<td>NDE 131</td>
<td>Radiation Safety &amp; Principles of Rt</td>
<td>4.0</td>
</tr>
<tr>
<td>NDE 141</td>
<td>Surface Testing (VT/PT)</td>
<td>3.0</td>
</tr>
<tr>
<td>NDE 151</td>
<td>Electromag Test (MT/ ET)</td>
<td>3.0</td>
</tr>
<tr>
<td>NDE 132</td>
<td>RT Industrial Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>NDE 252</td>
<td>Eddy Current Testing (ET)</td>
<td>2.0</td>
</tr>
<tr>
<td>NDE 221</td>
<td>UT Industrial Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>NDE 210</td>
<td>NDE Procedure Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 141</td>
<td>Symbols and Specifications</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Technical Electives**

Select 6 credits of the following:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 114</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>WLD 115</td>
<td>SMAW (Stick) Plate</td>
<td></td>
</tr>
<tr>
<td>NDE 231</td>
<td>Advance Radiographic Testing Techniques</td>
<td></td>
</tr>
<tr>
<td>MEC 172</td>
<td>Introduction to Metallurgy</td>
<td></td>
</tr>
<tr>
<td>MEC 180</td>
<td>Engineering Materials</td>
<td></td>
</tr>
<tr>
<td>WLD 143</td>
<td>Welding Metallurgy</td>
<td></td>
</tr>
<tr>
<td>NDE 261</td>
<td>Performance Demonstration Initiative -1, Ultrasonic Testing, Carbon Steel Pipe Welds</td>
<td></td>
</tr>
<tr>
<td>NDE 262</td>
<td>Performance Demonstration Initiative -2, Ultrasonic Testing, Stainless Steel Pipe Welds</td>
<td></td>
</tr>
<tr>
<td>NDE 263</td>
<td>Perf Demonstration Initiative -3, Ultrasonic Testing, Thru Wall Sizing, Carbon Steel/Stainless Steel</td>
<td></td>
</tr>
<tr>
<td>NDE 264</td>
<td>Perf Demonstration Initiative -8, Ultrasonic Testing, Weld Overlay and Dissimilar Metal Thru Wall Sizing</td>
<td></td>
</tr>
<tr>
<td>NDE 265</td>
<td>Performance Demonstration Initiative -10 Ultrasonic Testing, Dissimilar Metal Detection and Length Sizing</td>
<td></td>
</tr>
<tr>
<td>NDE 142</td>
<td>Visual Testing-1.2</td>
<td></td>
</tr>
<tr>
<td>NDE 143</td>
<td>Liquid Penetrant Testing-1.2</td>
<td></td>
</tr>
<tr>
<td>NDE 152</td>
<td>Magnetic Particle Testing-1.2</td>
<td></td>
</tr>
<tr>
<td>NDE 153</td>
<td>Eddy Current Testing-1</td>
<td></td>
</tr>
<tr>
<td>DFT 151</td>
<td>CAD I</td>
<td></td>
</tr>
<tr>
<td>DFT 170</td>
<td>Engineering Graphics</td>
<td></td>
</tr>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td></td>
</tr>
<tr>
<td>EGR 125</td>
<td>Appl Software for Tech</td>
<td></td>
</tr>
</tbody>
</table>
Nuclear Plant Inspection (D50350-D1)

The Nuclear Plant Inspection Diploma focuses on the Ultrasonic testing method, specifically as it relates to nuclear power plant piping welds examined during construction and in-service inspections. Applied math and physics are an integral part of NDE and this curriculum. Students will gain knowledge of the nuclear industry’s Performance Demonstration (PD) examination for the detection and sizing of defects in welds, heat affected zones and base materials. This diploma prepares the student to be successful when taking a PD examination in accordance with ASME Section XI, Appendix VIII, Supplement 3. These PDs are not part of this curriculum course and are administered by the Electric Power Research Institute (EPRI) in Charlotte, N.C.

Diploma Awarded

A diploma in Nuclear Plant Inspection is awarded by the College upon successful completion of this program.

Working in nuclear plants or with companies supplying equipment for these plants will require additional security and adherence to specific work requirements (criminal convictions and substance use criteria). These additional requirement or security clearances are not included in this program. Some of these requirements are located in the United States Code of Federal Regulations (CFR) Title 10, Energy:

- 10 CFR Part 26, Fitness for Duty Programs
- 10 CFR 73.56, Personnel Access Authorization Requirements for Nuclear Power Plants

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing 3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I 3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication 3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDE 110</td>
<td>Intro to Nondestructive Examination 3.0</td>
</tr>
<tr>
<td>NDE 112</td>
<td>Materials and Processes 3.0</td>
</tr>
<tr>
<td>NDE 121</td>
<td>Principles of Ultrasonic Exam UT 4.0</td>
</tr>
<tr>
<td>NDE 122</td>
<td>Angle Beam Examination 4.0</td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics 4.0</td>
</tr>
<tr>
<td>NDE 221</td>
<td>UT Industrial Applications 4.0</td>
</tr>
<tr>
<td>NDE 261</td>
<td>Performance Demonstration Initiative -1, Ultrasonic Testing, Carbon Steel Pipe Welds 7.0</td>
</tr>
<tr>
<td>NDE 262</td>
<td>Performance Demonstration Initiative -2, Ultrasonic Testing, Stainless Steel Pipe Welds 7.0</td>
</tr>
</tbody>
</table>

Non-Destructive Examination Technology Certificates (C50350)

These are special short-term certificates that are offered in the NDET program. The courses listed are taken from the NDET diploma and degree programs. These certificates are issued in accordance with CPCC policy and certify that the student has successfully completed the courses (GPA of 2.0 or higher within the certificate program). These are not certificates to perform NDE. These certificates along with the process of NDE qualification and testing are performed by the employer, not CPCC.

A student may earn certificates that build to earning a diploma or degree. A student may earn a certificate(s) in the same semester that he or she earns a degree or diploma.

Non-Destructive Examination Technology Certificate with a Specialization in Ultrasonic Examination (C50350-C1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDE 110</td>
<td>Intro to Nondestructive Examination 3.0</td>
</tr>
<tr>
<td>NDE 112</td>
<td>Materials and Processes 3.0</td>
</tr>
<tr>
<td>NDE 121</td>
<td>Principles of Ultrasonic Exam UT 4.0</td>
</tr>
<tr>
<td>NDE 122</td>
<td>Angle Beam Examination 4.0</td>
</tr>
</tbody>
</table>

Total Credits: 14
Non-Destructive Examination Technology Certificate with a Specialization in Visual and Penetrant Examination (C50350-C2)

Major Requirements
NDE 110 Intro to Nondestructive Examination 3.0
NDE 112 Materials and Processes 3.0
NDE 141 Surface Testing (VT/PT) 3.0
WLD 141 Symbols and Specifications 3.0
Total Credits 12

Non-Destructive Examination Technology Certificate with a Specialization in Magnetic Particle Examination (C50350-C3)

Major Requirements
NDE 110 Intro to Nondestructive Examination 3.0
NDE 112 Materials and Processes 3.0
NDE 151 Electromag Test (MT/ET) 3.0
WLD 141 Symbols and Specifications 3.0
Total Credits 12

Non-Destructive Examination Technology Certificate with a Specialization in Radiographic Examination (C50350-C4)

Major Requirements
NDE 110 Intro to Nondestructive Examination 3.0
NDE 112 Materials and Processes 3.0
NDE 131 Radiation Safety & Principles of Rt 4.0
NDE 132 RT Industrial Applications 3.0
Total Credits 13

Non-Destructive Examination Technology Certificate With a Specialization in Advanced Nuclear Plant Inspection of Ferritic and Stainless Steel Piping Welds (C50350-C5)

Major Requirements
NDE 221 UT Industrial Applications 4.0
NDE 261 Performance Demonstration Initiative -1, Ultrasonic Testing, Carbon Steel Pipe Welds 7.0
Total Credits 11

With a Specialization in Advanced Nuclear Plant Inspection - UT Inspection and Sizing of Piping and Dissimilar Welds (C50350-C6)

Major Requirements
NDE 262 Performance Demonstration Initiative -2, Ultrasonic Testing, Stainless Steel Pipe Welds 7.0
Total Credits 18

Non-Destructive Examination Technology Certificate with a Specialization in Eddy Current Examination (C50350-C7)

Major Requirements
NDE 110 Intro to Nondestructive Examination 3.0
NDE 112 Materials and Processes 3.0
NDE 151 Electromag Test (MT/ET) 3.0
NDE 252 Eddy Current Testing (ET) 2.0
WLD 141 Symbols and Specifications 3.0
Total Credits 14

Nursing Assistant

The Nursing Assistant curriculum prepares individuals to work under the supervision of licensed health care professionals in performing nursing care and services for persons of all ages.

Coursework emphasizes growth and development throughout the life span, personal care, vital signs, communication, nutrition, medical asepsis, therapeutic activities, accident and fire safety, household environment and equipment management; family resources and services; and employment skills.

Graduates of this curriculum may be eligible to be listed on the registry as a Nursing Assistant I and Nursing Assistant II. They may be employed in home health agencies, hospitals, clinics, nursing homes, extended care facilities, and doctor's offices.

No degrees offered.
No diplomas offered.

Nursing Assistant Certificate (C45480) (Pending State Approval)

Certificate Awarded

A Nursing Assistant Certificate is awarded by the College upon completion of the certificate requirements.

Admissions

- Complete a CPCC application
- Submit high school transcripts or equivalent as well as any college transcripts (if applicable)
- Take required placement tests. (Accuplacer)
- Many courses have prerequisites or co-requisites; check the Courses section for details.
- Students must have permission to register for NAS classes.

Notes

- For NAS 101 students must be at least 18 years of age on the first day of class
- Accuplacer scores or completion of MAT and ENG at the 100 level
- NAS 102 requires completion of NC state approved NAI program
- requires current active listing on the NC state NA I registry
- In order to participate in clinical education experiences at health care facilities, students are required to submit results of a NC state and/or national criminal background check at their own expense. As a condition of certificate admission, students will be required to verify that they are United States citizens or otherwise legally authorized residents of the United States.
- In addition to tuition, lab fees and textbooks, this certificate has additional costs that include uniforms, personal protective equipment, physical examinations, immunizations, and drug screening.
- Students in NAS 102 must have current CPR American Heart Association Healthcare provider certification prior to beginning the clinical experience.
- Progression in this certificate is dependent on satisfying course prerequisites, co-requisites, and maintaining a grade of “C” or better for all courses in the certificate.

Contact Information

The Nursing Assistant Certificate is in the Health & Human Services Division. For information, contact the Program Coordinator at 704.330.4377.

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAS 101</td>
<td>Nursing Assistant I</td>
<td>6.0</td>
</tr>
<tr>
<td>NAS 102</td>
<td>Nursing Assistant II</td>
<td>6.0</td>
</tr>
<tr>
<td>NAS 103</td>
<td>Home Health Care</td>
<td>2.0</td>
</tr>
<tr>
<td>MED 121</td>
<td>Medical Terminology I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>20.0</td>
</tr>
</tbody>
</table>

Nursing, Associate Degree

Christa A. Overcash Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings. Courses will include content related to the nurse’s role as provider of nursing care, as manager of care, as member of the discipline of nursing and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long-term care facilities, clinics, physicians’ offices, industry and community agencies.

Nursing, Associate Degree (A45110)

Degree Awarded

An Associate in Applied Science Degree in Nursing is awarded by the College upon completion of this program.

Notes

In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, a physical examination including drug screening test, immunizations such as tetanus toxoid, hepatitis B vaccinations, TB test, blood test (i.e., VDRL, rubella titer, etc.), current CPR certification, criminal background check, FBI fingerprinting, fees for application for licensure for N.C. State Board of Nursing National Council Licensure Examination. The student must provide a certificate of health and accident insurance.

All coursework must be completed with a grade of “C” or better.

Participation in clinical education experiences at area health care facilities will require students to submit results of a criminal background check and FBI fingerprinting at their own expense. Students will be required to verify that they are a citizen of the United States citizens, or an otherwise legally authorized resident.

Admissions

- Complete a CPCC application.
- Submit high school transcripts and any college transcripts.
- Meet with college counselors in Central High 212. Call for an appointment at 704.330.6433.
- Obtain an application to the nursing program.
- Provide a copy of current nurse aide listing from N.C. nurse aide registry.
- Completion of coursework with a minimum letter grade of “C.”

Contact Information

Christa A. Overcash Associate Degree Nursing program is in the Nursing Division. For more information, contact the Nursing Division at 704.330.6284. Application information may be found at www.cpcc.edu/nursing_human_services/nursingassociate-degree.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### Occupational Therapy Assistant

The Occupational Therapy Assistant curriculum prepares individuals to work under the supervision of a registered/licensed occupational therapist in screening, assessing, planning, and implementing treatment and documenting progress for clients receiving occupational therapy services.

Coursework includes human growth and development, conditions which interfere with activities of daily living, theory and process of occupational therapy, individual/group treatment activities, therapeutic use of self, activity analysis, and grading/adapting activities and environments.

Graduates may be eligible to take the national certification examination for practice as a certified occupational therapy assistant. Employment opportunities include hospitals, rehabilitation facilities, long-term/extended care facilities, sheltered workshops, schools, home health programs and community programs.

### Program Accreditation

The OTA program has applied for accreditation and has been granted Developing Program Status by the Accreditation Council for Occupational Therapy Education (ACOTE). Once accreditation status has been granted to CPCC, the graduates of the OTA program will be eligible to sit for the national certification examination for the occupational therapy assistant, which is administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of the NBCOT certification exam, the individual will be a Certified Occupational Therapy Assistant (COTA). In addition, most states require licensure in order to practice. Licensure generally requires initial certification by the NBCOT. A felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination and obtain state licensure. For more information about ACOTE, please contact ACOTE c/o Accreditation Department, American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Ste. 200, Bethesda, MD 20814-3449 or 301.652.2682 or [www.acoteonline.org](http://www.acoteonline.org).

### Occupational Therapy Assistant (A45500)

#### Degree Awarded

CPCC offers a two-year Associate in Applied Science degree program

### Admissions

- A high school diploma or equivalent is required.
- Complete a CPCC admission application.
- Take required placement tests.
- Meet with an academic advisor or counselor for preliminary counseling.
- Take the Test of Essential Academic Skills (TEAS) Version V.
• Submit all official high school and college transcripts.
• Complete any required Preparatory courses with grade of “C” or better.
• Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
• Continued progression in the program requires a grade of “C” or better in every course.
• Complete a physical examination (including drug screen) documenting ability to complete all program requirements.
• Many courses have prerequisites or corequisites; check the Courses section for details.
• Fieldwork II placements must be completed within 12 months of completion of didactic course work.

Notes
Students will spend more than 600 hours of supervised clinical training in hospitals, skilled nursing facilities, pediatric clinics, and other settings to gain invaluable hands-on experience that supplements and complements traditional classroom learning.

Contact Information
The Occupational Therapy Assistant program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/ota. If further assistance is needed contact the Program Chair at 704.330.6424.

General Education Requirements
ENG 111 Expository Writing 3.0
COM 231 Public Speaking 3.0
PSY 150 General Psychology 3.0
Select one of the following: 3.0
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting
MAT 115 Mathematical Models 3.0
or MAT 140 Survey of Mathematics
Select 3 credits of the following: 3.0
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
HUM 130 Myth in Human Culture

HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 210 History of Rock Music
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 111 Eastern Religions
REL 112 Western Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
PHI 215 Philosophical Issues

Major Requirements
OTA 110 Fundamentals of OT 3.0
OTA 120 OT Media I 2.0
OTA 130 Assessment Skills 3.0
OTA 140 Professional Skills I 1.0
OTA 150 Life Span Skills I 3.0
OTA 161 Fieldwork I-Placement 1 1.0
OTA 162 Fieldwork I-Placement 2 1.0
OTA 163 Fieldwork I-Placement 3 1.0
OTA 170 Physical Dysfunction 3.0
OTA 220 OT Media II 3.0
OTA 240 Professional Skills II 1.0
OTA 250 Life Span Skills II 3.0
OTA 260 Fieldwork II-Placement 1 6.0
OTA 261 Fieldwork II-Placement 2 6.0
PSY 241 Developmental Psychology 3.0
PSY 281 Abnormal Psychology 3.0
OTA 180 Psychosocial Dysfunction 3.0
BIO 168 Anatomy and Physiology I 4.0
OTA 280 Professional Transitions 1.0
BIO 169 Anatomy and Physiology II 4.0
CIS 111 Basic PC Literacy 2.0
or CIS 110 Introduction to Computers

Total Credits 75

No diplomas offered.
No certificates offered.

Office Administration
The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis
and coordination of office duties and systems and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government and industry. Job classifications range from entry-level to supervisor to middle management. With appropriate work experience, graduates may apply for certification as a Certified Professional Secretary® (CPS®)/Certified Administrative Professional® (CAP®) through the International Association of Administrative Professionals (IAAP).

Office Administration (A25370)

Degree Awarded
The Associate in Applied Science Degree - Office Administration is awarded by the College upon completion of this program.

Admissions
- Complete a CPCC application.
- Submit high school transcript and any college transcripts.
- Take required placement tests to determine placement in English (ENG) and mathematics (MAT) courses.
- Meet with counselor.
- Check the Courses section to determine course prerequisites or co-requisites.

Contact Information
The Office Administration program is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
</tr>
</tbody>
</table>
POL 110  Introduction to Political Science
PSY 237  Social Psychology
SOC 220  Social Problems

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 164</td>
<td>Text Editing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 184</td>
<td>Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 289</td>
<td>Administrative Office Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 135</td>
<td>Advanced Text Entry &amp; Formatting</td>
<td>4.0</td>
</tr>
<tr>
<td>OST 236</td>
<td>Advanced Word Or Information Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 138</td>
<td>Advanced Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 223</td>
<td>Administrative Office Transcription I</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 233</td>
<td>Office Publications Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>ACC 115</td>
<td>College Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>or ACC 120</td>
<td>Principles of Financial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

Technical Electives

Select 9 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>CTS 112</td>
<td>Windows (TM)</td>
<td></td>
</tr>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
<td></td>
</tr>
<tr>
<td>BUS 135</td>
<td>Principles of Supervision</td>
<td></td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 73

Office Administration Legal Concentration (A2537A)

Legal is a concentration under the curriculum title of Office Administration. This curriculum prepares individuals for entry-level positions in legal or government-related offices and provides professional development for the currently employed.

Course work includes terminology, operational procedures, preparation and transcription of documents, computer software and court-related functions as they relate to the legal office profession. Emphasis is placed on the development of accuracy, organizational skills, discretion and professionalism.

Graduates should qualify for employment in corporate legal departments; private practices, including real estate and estate planning; and city, state and federal government offices. With appropriate work experience, graduates may apply for certification as a Professional Legal Secretary (PLS).

Notes
Students interested in the Office Administration, Legal Concentration should consult with a faculty advisor regarding selection of elective courses.

Contact Information
The Office Administration, Legal Concentration program is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
</tbody>
</table>

Admissions

- Complete a CPCC application.
- Submit high school transcript and any college transcripts.
- Take required placement tests to determine placement in English (ENG) and mathematics (MAT) courses.
- Meet with counselor.
- Check the Courses section to determine course prerequisites or co-requisites.

Degree Awarded

The Associate in Applied Science Degree - Office Administration, Legal Concentration is awarded by the College upon completion of this program.
Central Piedmont Community College

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 155</td>
<td>Legal Terminology</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 156</td>
<td>Legal Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 252</td>
<td>Legal Transcription I</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 236</td>
<td>Advanced Word Or Information Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 138</td>
<td>Advanced Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 251</td>
<td>Legal Document Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 115</td>
<td>College Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>or ACC 120</td>
<td>Principles of Financial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

Technical Electives

Select 6 credits of the following: 6.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
<td></td>
</tr>
<tr>
<td>OST 251</td>
<td>Legal Document Formatting</td>
<td></td>
</tr>
<tr>
<td>LEX 120</td>
<td>Legal Research/Writing I</td>
<td></td>
</tr>
<tr>
<td>LEX 140</td>
<td>Civil Litigation I</td>
<td></td>
</tr>
<tr>
<td>LEX 160</td>
<td>Criminal Law &amp; Procedure</td>
<td></td>
</tr>
<tr>
<td>LEX 180</td>
<td>Case Analysis &amp; Reasoning</td>
<td></td>
</tr>
<tr>
<td>LEX 210</td>
<td>Real Property I</td>
<td></td>
</tr>
<tr>
<td>LEX 240</td>
<td>Family Law</td>
<td></td>
</tr>
<tr>
<td>OST 233</td>
<td>Office Publications Design</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 75

Office Administration Diplomas (D25370)

Office Administration Diploma in General Clerical Skills (D25370-D1)

The purpose of the General Clerical Skills curriculum is to prepare the individual to enter clerical office occupations. This purpose will be fulfilled through skill development in the areas of word processing, records management and ten-key skills. Through these skills and through development of personal competencies and qualities, an individual will be able to function effectively in office-related activities at the entry-level. The courses in this diploma can be applied toward the A.A.S. degree in Office Administration.

Graduates should qualify for entry-level employment in general clerical positions in business, government and industry.

Diploma Awarded

The Diploma in General Clerical Skills – Office Administration is awarded by the College upon completion of this program.

Admissions

- A high school diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Courses section for details.
Contact Information
The Office Administration Diploma is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 164</td>
<td>Text Editing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 184</td>
<td>Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>CTS 112</td>
<td>Windows (TM)</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 138</td>
<td>Advanced Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 36

Office Administration Diploma in Word Processing Operator (D25370-D2)
The Word Processing curriculum prepares individuals to create, edit and proof a variety of documents accurately. Upon completion of this program, students will possess knowledge of word processing, database, spreadsheet and electronic mail software. The courses in this diploma can be applied toward the A.A.S. degree in Office Administration.

Graduates should qualify for entry-level employment in word processing positions in business, government and industry.

Diploma Awarded
The Diploma in Word Processing Operator – Office Administration is awarded by the College upon completion of this program.

Admissions
- A high school diploma or equivalent is required.
- Many courses have prerequisites or corequisites; check the Courses section for details.

Contact Information
The Word Processing Operator Diploma is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 164</td>
<td>Text Editing Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 184</td>
<td>Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 286</td>
<td>Professional Development</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 110</td>
<td>Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>CTS 112</td>
<td>Windows (TM)</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 134</td>
<td>Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 138</td>
<td>Advanced Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits 36
Office Administration Certificate with a Specialization in Receptionist Skills (C25370-C1)
The Receptionist curriculum prepares individuals to receive and route telephone calls, greet visitors and handle filing, mailing, copying and faxing. In addition, students would possess basic keyboarding and computer skills. The courses in this certificate can be applied toward the A.A.S. degree in Office Administration.

Certificate Awarded
The Certificate in Receptionist Skills – Office Administration is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent is required.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information
The Receptionist Skills Certificate is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

Major Requirements
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td>2.0</td>
</tr>
<tr>
<td>or BUS 110</td>
<td>Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

Office Administration Certificate with a Specialization in Software Use (C25370-C2)
The Certificate in Software Use provides students with an introductory knowledge of software usage to enable them to function effectively in an office environment using the touch keying system. Students will have knowledge of word processing, database, spreadsheets and electronic mail applications. The courses in this certificate can be applied toward the A.A.S. degree in Office Administration.

Certificate Awarded
The Certificate in Software Use – Office Administration is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent is required.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information
The Software Use Certificate is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

Major Requirements
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111</td>
<td>Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 137</td>
<td>Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 130</td>
<td>Spreadsheet</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 112</td>
<td>Windows (TM)</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Office Administration Certificate in Basic Office Assistant (C25370-C4)
The Basic Office Assistant curriculum prepares individuals for entry-level positions in a professional office environment by developing the following skills:
• Email functions: scheduling appointments and meetings, creating, contracts, maintaining calendars
• Career strategies
• Introduction to Computers
• Records and information management
• Processing electronic documents
• Ten key skills

The courses in this certificate can be applied toward the A.A.S. degree in Office Administration.
Certificate Awarded
The Certificate in Basic Office Assistant - Office Administration is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent is required.

Contact Information
The Basic Office Assistant Certificate is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110 Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111 Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 136 Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 184 Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131 Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 110 Ten-Key Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>OST 137 Office Software Applications</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Back to Top

Office Administration Specialist Certificate (C25370-C5)
The Office Administration Specialist curriculum prepares individuals for entry level positions in a professional office environment by developing the following skills:

• Speed and accuracy in keyboarding
• Email functions: scheduling appointments and meetings, creating contacts, maintaining calendars
• Career strategies
• Introduction to Computers
• Processing electronic documents

The courses in this certificate can be applied toward the A.A.S. degree in Office Administration.

Certificate Awarded
The Office Administration Specialist Certificate is awarded by the College upon completion of this program.

Admissions
• A high school diploma or equivalent is required.

Contact Information
The Office Administration Specialist Certificate is in the Professional Careers Division. For more information, call 704.330.6851 or visit our website at www.cpcc.edu/office_systems.

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110 Introduction to Computers</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 111 Basic PC Literacy</td>
<td></td>
</tr>
<tr>
<td>OST 136 Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 134 Text Entry &amp; Formatting</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Ophthalmic Medical Assistant
The Ophthalmic Medical Assistant Program prepares individuals to perform ophthalmic procedures under the supervision of a licensed physician specializing in Ophthalmology. Course work includes lecture, laboratory, and clinical training in ocular measurements, ocular testing, lensometry, administering topical and oral medications, eye care, and caring for instruments. Graduates are employed in medical institutions, clinics, or physician practices. Graduates may qualify as candidates to take the Joint Commission on Allied Health Personnel, Ophthalmology National Certification Exam.

No degrees offered.

Ophthalmic Medical Assistant (D45510) Diploma Awarded
A diploma in Ophthalmic Medical Assistant is awarded by the College upon completion of this program.

Admissions
• CPCC Application
• High School transcript
• College transcripts
• CPCC placement tests
• Schedule a meeting with an academic advisor

Notes
Progression in this program is dependent upon a grade of "C" or better in all general education courses, as well as major and related courses.

Students must be certified by the American Heart Association in “Health Care Provider Level” CPR or by the American Red Cross in “CPR for the Professional Rescuer” prior to registering for an OPH course.

In order to participate in clinical education experiences at health care facilities, student may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are an otherwise legally authorized residents of the United States.

General Education Requirements
| ENG 111 Expository Writing | 3.0 |
| PSY 150 General Psychology | 3.0 |
| Select one of the following: | 3.0 |
| COM 110 Introduction to Communication | |
| COM 120 Intro to Interpersonal Communication | |
| COM 231 Public Speaking | |
Central Piedmont Community College

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPH 103</td>
<td>Introduction to Diseases of the Eye</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 104</td>
<td>Basic Ophthalmic Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 105</td>
<td>Ophthalmic Clinical Procedures I</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 106</td>
<td>Ophthalmic Medical Assistant Practicum I</td>
<td>9.0</td>
</tr>
<tr>
<td>OPH 107</td>
<td>Ophthalmic Clinical Procedures II</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 108</td>
<td>Ophthalmic Patient Care</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 109</td>
<td>Ophthalmic Optics &amp; Basic Refractometry</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 110</td>
<td>Ophthalmic Medical Assistant Practicum II</td>
<td>9.0</td>
</tr>
<tr>
<td>OPH 150</td>
<td>Intro to Ophthalmic Medical Assisting</td>
<td>2.0</td>
</tr>
<tr>
<td>OPH 151</td>
<td>Ocular Anatomy &amp; Physiology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Total Credits: 43

No certificates offered.

Paralegal Technology

ABA Approved and North Carolina Bar Certified

Paralegals may not provide legal services directly to the public, except as permitted by law.

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Coursework includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts and commercial law. Required courses also include subjects such as English, mathematics and computer utilization.

Graduates are trained to assist attorneys in various areas of practice with drafting, filing legal documents, writing and research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies and other business organizations.

Paralegal Technology (A25380)

Degree Awarded

An Associate in Applied Science in Paralegal Technology degree is awarded by the College upon completion of this program.

Contact Information

The Paralegal Technology Program is in the Professional Careers Division. For more information, visit the Paralegal program website at www.cpcc.edu/paralegal. The program chair can be reached at 704.330.4857. A college counselor can be reached by calling 704.330.2722 ext. 4801.

Admissions

- A high school diploma or equivalent is required.
- Placement test scores will determine placement in English and mathematics courses.
- A counseling/orientation appointment follows placement testing.

- A student must complete ENG 111 with a minimum grade of “C” or better prior to registering for any LEX courses.
- LEX 110 is a prerequisite to all other LEX courses except LEX 120 and LEX 140. In addition to taking LEX 110, students should take LEX 120 and LEX 140 prior to taking other LEX courses.
- Many courses have prerequisites or corequisites; check the Courses section for details.
- A student must receive a final grade of “C” or higher in a LEX course in order to receive course credit towards a Paralegal Technology A.A.S. degree (A25380).

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>ENG 253</td>
<td>The Bible As Literature</td>
</tr>
<tr>
<td>ENG 271</td>
<td>Contemporary Literature</td>
</tr>
<tr>
<td>ENG 273</td>
<td>African-American Literature</td>
</tr>
<tr>
<td>ENG 274</td>
<td>Literature by Women</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>PHI 240</td>
<td>Introduction to Ethics</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
</tbody>
</table>

Select one of the following: 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEX 110</td>
<td>Intro to Paralegal Study</td>
<td>2.0</td>
</tr>
<tr>
<td>LEX 120</td>
<td>Legal Research/Writing I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 130</td>
<td>Civil Injuries</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 140</td>
<td>Civil Litigation I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 150</td>
<td>Commercial Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 210</td>
<td>Real Property I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 240</td>
<td>Family Law</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 250</td>
<td>Wills, Estates, &amp; Trusts</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 141</td>
<td>Civil Litigation II</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 121</td>
<td>Legal Research/Writing II</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 280</td>
<td>Ethics &amp; Professionalism</td>
<td>2.0</td>
</tr>
<tr>
<td>LEX 271</td>
<td>Law Office Writing</td>
<td>2.0</td>
</tr>
<tr>
<td>ACC 115</td>
<td>College Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>or ACC 120</td>
<td>Principles of Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

**Technical Elective**

Select 6 credits of the following: 6.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>LEX 160</td>
<td>Criminal Law &amp; Procedure</td>
<td></td>
</tr>
</tbody>
</table>

**Paralegal Technology Diploma (D25380)**

**ABA Approved and North Carolina Bar Certified**

Paralegals may not provide legal services directly to the public, except as permitted by law.

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Coursework includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills estates, trusts and commercial law.

Graduates are trained to assist attorneys various areas of practice with drafting, filing legal documents, writing and research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies and other business organizations.

**Diploma Awarded**

A post-baccalaureate diploma in Paralegal Technology is awarded by the College upon completion of this program.

**Admissions**

- This program is open only to students who have a bachelor’s degree from an accredited college or university.
- An official undergraduate transcript must be on file with the College’s records department.
- LEX 110 is a prerequisite to all other LEX courses except LEX 120 and LEX 140. In addition to taking LEX 110, students should take LEX 120 and LEX 140 in their first semester and prior to taking other LEX courses.
- A student must receive a final grade of “C” or higher in an LEX course in order to receive course credit towards a Paralegal Technology Post-Baccalaureate diploma (D25380).

**Contact Information**

The Paralegal Technology Program is in the Professional Careers Division. For more information, visit the Paralegal program website at www.cpcc.edu/paralegal. The program chair can be reached.
at 704.330.4857. A college counselor can be reached by calling 704.330.2722 ext. 4801.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>or COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 220</td>
<td>Cultural Anthropology</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEX 110</td>
<td>Intro to Paralegal Study</td>
<td>2.0</td>
</tr>
<tr>
<td>LEX 120</td>
<td>Legal Research/Writing I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 140</td>
<td>Civil Litigation I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 141</td>
<td>Civil Litigation II</td>
<td>3.0</td>
</tr>
<tr>
<td>OST 131</td>
<td>Keyboarding</td>
<td>2.0</td>
</tr>
<tr>
<td>OST 136</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 121</td>
<td>Legal Research/Writing II</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 280</td>
<td>Ethics &amp; Professionalism</td>
<td>2.0</td>
</tr>
<tr>
<td>LEX 150</td>
<td>Commercial Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>LEX 210</td>
<td>Real Property I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

Technical Elective

Select 5 credits of the following: 5.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
</tr>
<tr>
<td>COE 121</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
</tr>
<tr>
<td>LEX 160</td>
<td>Criminal Law &amp; Procedure</td>
</tr>
<tr>
<td>LEX 170</td>
<td>Administrative Law</td>
</tr>
<tr>
<td>LEX 211</td>
<td>Real Property II</td>
</tr>
<tr>
<td>LEX 220</td>
<td>Corporate Law</td>
</tr>
<tr>
<td>LEX 260</td>
<td>Bankruptcy and Collections</td>
</tr>
<tr>
<td>LEX 285</td>
<td>Workers’ Compensation Law</td>
</tr>
<tr>
<td>LEX 180</td>
<td>Case Analysis &amp; Reasoning</td>
</tr>
</tbody>
</table>

LEX 130   | Civil Injuries                        |
LEX 240   | Family Law                            |
LEX 250   | Wills, Estates, & Trusts              |
LEX 270   | Law Office Management/Technology      |
LEX 283   | Investigation                         |
LEX 289   | U.S. Constitutional Law               |
LEX 283   | Investigation                         |
LEX 271   | Law Office Writing                    |
LEX 281   | Intellectual Property                 |
LEX 282   | Immigration Law                       |

Total Credits 40

No certificates offered.

Pharmacy Technology

The Pharmacy Technology curriculum prepares individuals to assist the pharmacist in duties that a pharmacy technician can legally perform and to function within the boundaries prescribed by the pharmacist and the employment agency.

Coursework includes and builds upon the domains of health care and pharmaceutical principals. Content emphasizes the pharmacy technician as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement and informatics. Students will prepare prescription medications, mix intravenous solutions and other specialized medications, update patient profiles, maintain inventories, package medications and gather data used by pharmacists to monitor drug therapy.

Graduates of this program are eligible to apply to take the certification exam with the Pharmacy Technician Certification Board (PTCB). Employment opportunities are vast within the global health care system. Employment opportunities include retail, hospitals, nursing homes, research laboratories and pharmaceutical manufacturing facilities.

Pharmacy Technology (A45580)

Degree Awarded

The Associate in Applied Science degree – Pharmacy Technology is awarded by the College upon completion of this program.

Admissions

- Complete a CPCC application.
- Submit high school transcripts, as well as any college transcripts, to Student Records.
- Take required placement tests.
- Meet with a counselor or advisor to review placement test scores, program information and select courses for registration.
- Complete and submit a Pharmacy Technology AAS degree application by the deadline date.
- Take applicable Developmental Education courses.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
College-Level Programs

- Progression in this program is dependent upon a grade of “C” or better in all general education courses, as well as major and related courses.

Applicants to the Pharmacy Technology AAS degree program are selected on a “best prepared” basis. The point system was implemented as an objective means for evaluating Pharmacy Technology applicants. Applicants will be ranked based upon points earned, and the students with the highest number of points will be selected each year. Admission points will be assigned according to the applicant’s documented record. Criteria for selection include scores on standardized tests, past academic performance and experience in the field of interest.

Notes

Students must demonstrate basic computer competencies through course work or testing. The division director of Computer Office and Information Systems will determine equivalent competency.

Costs of this program, in addition to tuition and textbooks, include uniforms, physical examination, criminal background check and specific vaccinations. The student must provide proof of health and accident insurance.

The North Carolina State Board of Pharmacy may request information regarding having been charged with or convicted of violating any controlled substances laws or charged or disciplined by any licensing or permitting authority, federal or state on the application for registration. The Board of Pharmacy may decide not to register an individual based on the results of an investigation. A candidate may be disqualified for Pharmacy Technician Certification Board (PTCB) certification upon the disclosure or discovery of:

- Criminal conduct involving the candidate
- State Board of Pharmacy registration or licensure action involving the candidate
- Violation of a PTCB Certification policy, including but not limited to the Code of Conduct

In order to participate in clinical education experiences at health care facilities, students are required to submit results of a criminal background check at their own expense. As a condition of program admission, students are required to verify that they are United States citizens or are otherwise legally authorized residents of the United States. Students are also required, at their own expense, to submit to a 13-panel drug screen.

Contact Information

The Pharmacy Technology program is in the Health and Human Services Division. For more information, first go to the website at http://www.cpcc.edu/nursing_human_services/pharmacy-technician-program-a45580?searchterm=pharmacy+aas. If further assistance is needed, contact the Program Chair at 704.330.6432.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>or ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHM 110</td>
<td>Introduction to Pharmacy</td>
<td>3.0</td>
</tr>
<tr>
<td>PHM 111</td>
<td>Pharmacy Practice I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHM 115</td>
<td>Pharmacy Calculations</td>
<td>3.0</td>
</tr>
<tr>
<td>PHM 118</td>
<td>Sterile Products</td>
<td>4.0</td>
</tr>
<tr>
<td>PHM 120</td>
<td>Pharmacology I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHM 125</td>
<td>Pharmacology II</td>
<td>3.0</td>
</tr>
</tbody>
</table>
PHM 140  Trends in Pharmacy 2.0
PHM 150  Hospital Pharmacy 4.0
PHM 155  Community Pharmacy 3.0
PHM 160  Pharm Dosage Forms 3.0
PHM 165  Pharmacy Prof Practice 2.0
PHM 132  Pharmacy Clinical 2.0
PHM 134  Pharmacy Clinical 4.0
PHM 138  Pharmacy Clinical 8.0
PHM 265  Professional Issues 3.0
BIO 161  Introduction to Human Biology 3.0
CIS 110  Introduction to Computers 3.0
Total Credits 150

No diplomas offered.

No certificates offered.

Physical Therapist Assistant

The Physical Therapist Assistant curriculum prepares graduates to work in direct patient care settings under the supervision of physical therapists. Assistants work to improve or restore function by alleviation or prevention of physical impairment and perform other essential activities in a physical therapy department.

Coursework includes normal human anatomy and physiology, the consequences of disease or injury and physical therapy treatment of a variety of patient conditions affecting humans throughout the lifespan.

Graduates are eligible to take the PTA National Therapy Exam (NPTE) for licensure in whichever state they plan to work. Employment is available in general hospitals, rehabilitation centers, outpatient orthopedic clinics, school systems, geriatric health care facilities and home health agencies.

Physical Therapist Assistant (A45640)

Degree Awarded

The Associate in Applied Science Degree - Physical Therapist Assistant is awarded by the College upon completion of this program.

Admissions

- A high school diploma or equivalent is required.
- Complete a CPCC admission application.
- Take required placement tests.
- Meet with an academic advisor or counselor for preliminary counseling.
- Take the Test of Essential Academic Skills
- Submit all official high school transcripts and any college transcripts.
- Complete any required Preparatory courses with a grade of “C” or better.
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
- Continued progression in the program requires a grade of “C” or better in every course.

- A physical examination (including a drug screen) documenting the applicant’s ability to complete all program requirements is required.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

Program Accreditation

The Physical Therapist Assistant program at CPCC is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA).

Notes

In addition to tuition and textbooks, costs of the program include uniforms, travel to clinical sites, liability and accident insurance, health insurance, a fee for CPR/First Aid certification and/or recertification, a fee for licensure application and the cost of a physical examination including immunizations and blood tests. Current CPR and First Aid certification is required prior to all clinical courses.

In order to participate in clinical education experiences at health care facilities, students are required to submit results of a N.C. state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information

The Physical Therapist Assistant program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/physical-therapist-assistant. If further assistance is needed contact the Program Chair at 704.330.6505.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ENG 112</td>
<td>Argument-Based Research</td>
</tr>
<tr>
<td></td>
<td>ENG 113</td>
<td>Literature-Based Research</td>
</tr>
<tr>
<td></td>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
</tbody>
</table>
College-Level Programs

ENG 242  British Literature II
ENG 251  Western World Literature I
ENG 252  Western World Literature II
MUS 110  Music Appreciation
MUS 112  Introduction to Jazz
MUS 213  Opera and Musical Theatre
PHI 220  Western Philosophy I
PHI 221  Western Philosophy II
PHI 230  Introduction to Logic
REL 110  World Religions
REL 211  Introduction to Old Testament
REL 212  Introduction to New Testament
REL 221  Religion in America
ART 116  Survey of American Art
PHI 230  Introduction to Logic
MUS 210  History of Rock Music

Select 3 credits of the following: 3.0
MAT 140  Survey of Mathematics
MAT 161  College Algebra
MAT 155  Statistical Analysis
MAT 171  Precalculus Algebra
MAT 172  Precalculus Trigonometry
MAT 175  Precalculus
MAT 271  Calculus I
MAT 272  Calculus II
MAT 273  Calculus III

Select 3 credits of the following: 3.0
COM 110  Introduction to Communication
COM 120  Intro to Interpersonal Communication
COM 231  Public Speaking

Major Requirements
PTA 110  Intro to Physical Therapy 3.0
PTA 125  Gross & Functional Anatomy 5.0
PTA 135  Pathology 4.0
PTA 145  Therapeutic Procedures 4.0
PTA 212  Health Care/Resources 2.0
PTA 215  Therapeutic Exercise 3.0
PTA 222  Professional Interactions 2.0
PTA 225  Intro to Rehabilitation 4.0
PTA 235  Neurological Rehab 5.0
PTA 245  PTA Clinical III 4.0
PTA 255  PTA Clinical IV 4.0
PTA 165  PTA Clinical I 3.0
PTA 185  PTA Clinical II 3.0
BIO 168  Anatomy and Physiology I 4.0
BIO 169  Anatomy and Physiology II 4.0
MED 120  Survey of Medical Terminology 2.0
PTA 270  PTA Topics 1.0

Total Credits 75

No diplomas offered.

Respiratory Therapy

The Respiratory Therapy curriculum prepares individuals to function as respiratory therapists. In these roles, individuals perform diagnostic testing, treatments and management of patients with heart and lung diseases.

Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration and treatment of patients of all ages in a variety of settings. Graduates of accredited programs are eligible to take the Entry-Level and Advanced Practitioner examinations from the National Board for Respiratory Care. Graduates may be employed in hospitals, clinics, nursing homes, education, industry and home care.

Respiratory Therapy (A45720)

Degree Awarded
The Associate in Applied Science degree - Respiratory Therapy is awarded by the College upon completion of this program.

Admissions
- Complete a CPCC application.
- Submit high school transcripts as well as any college transcripts.
- Take required placement tests.
- Continued progression in the program requires a grade of “C” or better in every course.
- Complete at least high school level chemistry and the accompanying lab with a “C” or better within the last five years.
- Chemistry must be completed with a grade of “C” or better within the last five years prior to entering the program. (CHM 121/CHM 121A or higher).
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.
- Continued progression in the program requires a grade of “C” or better in every course.
- Applicants must also present evidence of good physical and mental health.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
- Successfully complete any required developmental classes with a grade of “C” or better.

Program Accreditation
The Respiratory Therapy Program at CPCC is accredited by the Commission on Accreditation for Respiratory Care (CoARC).

Notes
In addition to tuition and textbooks, costs of this program include the following: uniforms, lab coat, stethoscope, scissors, hemostats, watch with a second hand, a physical examination including immunizations such as tetanus toxoid, hepatitis B, TB test, blood test e.g., rubella titer, fees for Health Care Provider Cardiac Life Support course and fees for Self-
Assessment Examinations. Attendance of professional seminars and meetings is also required.

The student must provide a certificate of health or accident insurance.

In order to progress in this program, students must earn a “C” or better in all curriculum courses.

To participate in clinical education experiences at healthcare facilities, students may be required to submit results of a N.C. state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Students are also required, at their own expense, to submit to a nine-panel drug screen.

Contact Information
The Respiratory Therapy program is in the Health Sciences Division. For more information, first go to the website at http://www.cpcc.edu/health_sciences/respiratory-therapy. If further assistance is needed contact the Program Chair at 704.330.6274.

General Education Requirements
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
   ENG 112 Argument-Based Research
   ENG 113 Literature-Based Research
   ENG 114 Professional Research & Reporting
Select one of the following: 3.0
   COM 110 Introduction to Communication
   COM 120 Intro to Interpersonal Communication
   COM 231 Public Speaking
Select one of the following: 3.0
   MAT 140 Survey of Mathematics
   MAT 161 College Algebra
   MAT 171 Precalculus Algebra
   MAT 172 Precalculus Trigonometry
   MAT 175 Precalculus
   MAT 155 Statistical Analysis
   MAT 271 Calculus I
   MAT 272 Calculus II
   MAT 273 Calculus III
Select 3 credits of the following: 3.0
   ANT 210 General Anthropology
   ANT 220 Cultural Anthropology
   ANT 221 Comparative Cultures
   ECO 151 Survey of Economics
   ECO 251 Principles of Microeconomics
   ECO 252 Principles of Macroeconomics
   GEO 111 World Regional Geography
   HIS 111 World Civilizations I
   HIS 112 World Civilizations II
   HIS 131 American History I
   HIS 132 American History II
   POL 120 American Government
   POL 210 Comparative Government
   POL 220 International Relations
   PSY 150 General Psychology
   PSY 241 Developmental Psychology
   PSY 281 Abnormal Psychology
   SOC 210 Introduction to Sociology
   SOC 213 Sociology of the Family
   SOC 225 Social Diversity
   POL 110 Introduction to Political Science
   PSY 237 Social Psychology
   SOC 220 Social Problems
Select 3 credits of the following: 3.0
   ART 111 Art Appreciation
   ART 114 Art History Survey I
   ART 115 Art History Survey II
   ART 116 Survey of American Art
   ART 117 Non-Western Art History
   DAN 110 Dance Appreciation
   DAN 211 Dance History I
   DAN 212 Dance History II
   DRA 111 Theatre Appreciation
   DRA 112 Literature of the Theatre
   DRA 122 Oral Interpretation
   ENG 231 American Literature I
   ENG 232 American Literature II
   ENG 241 British Literature I
   ENG 242 British Literature II
   ENG 251 Western World Literature I
   ENG 252 Western World Literature II
   HUM 130 Myth in Human Culture
   HUM 160 Introduction to Film
   HUM 211 Humanities I
   HUM 212 Humanities II
   MUS 110 Music Appreciation
   MUS 112 Introduction to Jazz
   MUS 213 Opera and Musical Theatre
   PHI 220 Western Philosophy I
   PHI 221 Western Philosophy II
   PHI 230 Introduction to Logic
   REL 110 World Religions
   REL 111 Eastern Religions
   REL 211 Introduction to Old Testament
   REL 212 Introduction to New Testament
   REL 221 Religion in America
   MUS 210 History of Rock Music

Major Requirements
RCP 110 Intro to Respiratory Care 4.0
RCP 111 Therapeutics/Diagnostics 5.0
RCP 210 Critical Care Concepts 4.0
RCP 211 Advanced Monitoring/Procedures 4.0
RCP 235 RCP Clinical Practice IV 5.0
Simulation and Game Development

The Simulation and Game Development (SGD) curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming and management. Students receive hands-on training in design, 3D modeling, software engineering, database administration and programming for the purpose of creating simulations and games.

Graduates may qualify for employment as designers, artists, animators, programmers, database administrators, testers, quality assurance analysts, engineers and administrators in the entertainment industry, the healthcare industry, engineering, forensics, education, NASA and government agencies.

Among the tools used in the program are: 3ds Max Studio, Maya, Torque Game Engines, Game Maker, Flash, MS Silverlight, Adobe Premiere Pro, MS Visual Studio, Adobe Photoshop, ZBrush, Mudbox3D and Unreal Engine. Students use various programming languages and scripts to create their simulations and games, including: C#, XNA, C++, J2E, VB, Python, Java and Action Script.

All SGD courses meet rigorous national standards for online delivery and are offered for fully online delivery in local and international markets. The program maintains contact with local game development companies, including Red Storm, Epic Games and Virtual Heroes as well as one of the most active IGDA chapters in the nation, the Triangle Chapter. The program also offers one diploma and three certificates.

Simulation and Game Development
(A25450)

Degree Awarded

The Associate in Applied Science degree in Simulation and Game Development is awarded by the College upon completion of this program.

Admissions

- A high school diploma or equivalent is required.
- Placement tests determine placement in English (ENG) and mathematics (MAT).
- Some courses have prerequisites or co-requisites; check the Courses section for details.

Contact Information

The Simulation and Game Development program is in the Information Technology Division. For more information, call 704.330.6894 or 704.330.6549.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>MAT 111</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

- ANT 210 General Anthropology
- ANT 220 Cultural Anthropology
- ECO 151 Survey of Economics
- ECO 251 Principles of Microeconomics
- ECO 252 Principles of Macroeconomics
- GEO 111 World Regional Geography
- HIS 111 World Civilizations I
- HIS 112 World Civilizations II
- HIS 131 American History I
- HIS 132 American History II
- POL 120 American Government
- POL 210 Comparative Government
- POL 220 International Relations
- PSY 150 General Psychology
- PSY 241 Developmental Psychology
- PSY 281 Abnormal Psychology
- SOC 210 Introduction to Sociology
- SOC 213 Sociology of the Family
- SOC 225 Social Diversity
- ANT 221 Comparative Cultures
- POL 110 Introduction to Political Science
- PSY 237 Social Psychology
- SOC 220 Social Problems

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGD 111</td>
<td>Introduction to Simulation and Game Development</td>
</tr>
<tr>
<td>SGD 112</td>
<td>Simulation and Game Development Design</td>
</tr>
<tr>
<td>SGD 113</td>
<td>Simulation and Game Development Programming</td>
</tr>
<tr>
<td>SGD 114</td>
<td>3D Modeling</td>
</tr>
<tr>
<td>SGD 212</td>
<td>Simulation and Game Development Desing II</td>
</tr>
<tr>
<td>SGD 213</td>
<td>Simulation Game Development Programming II</td>
</tr>
<tr>
<td>SGD 214</td>
<td>3D Modeling II</td>
</tr>
<tr>
<td>SGD 289</td>
<td>Simulation and Game Development Project</td>
</tr>
<tr>
<td>SGD 232</td>
<td>Survey of Game Engines</td>
</tr>
<tr>
<td>SGD 116</td>
<td>Graphic Design Tools</td>
</tr>
</tbody>
</table>

**SGD Electives**

Select 12 credits of the following: 12.0

- SGD 115 Physically-Based Modeling
- SGD 117 Art for Games
- SGD 123 Windows and Console Programming
- SGD 124 Massive Multiplayer Online Programming
- SGD 125 Simulation and Game Artificial Intelligence
- SGD 126 Simulation and Game Engine Design
- SGD 134 SG Quality Assurance
- SGD 135 Serious Games
- SGD 158 SGD Business Management
- SGD 159 SGD Production Management
- SGD 161 Simulation and Game Animation
- SGD 162 Simulation and Game 3-D Animation
- SGD 163 Simulation and Game Documentation
- SGD 164 Simulation and Game Audio and Video

**Technical Electives**

Select 9 credits of the following: 9.0

- SGD 115 Physically-Based Modeling
- SGD 117 Art for Games
- SGD 123 Windows and Console Programming
- SGD 124 Massive Multiplayer Online Programming
- SGD 125 Simulation and Game Artificial Intelligence
- SGD 126 Simulation and Game Engine Design
- SGD 134 SG Quality Assurance
- SGD 135 Serious Games
- SGD 158 SGD Business Management
- SGD 159 SGD Production Management
- SGD 161 Simulation and Game Animation
- SGD 162 Simulation and Game 3-D Animation
- SGD 163 Simulation and Game Documentation
- SGD 164 Simulation and Game Audio and Video
Simulation and Game Development Certificate Specialization in Simulation and Game Development Level I (C25450-21)

This certificate is also available to students enrolled in Career & College Promise.

Major Requirements
- SGD 111 Introduction to Simulation and Game Development 3.0
- SGD 112 Simulation and Game Development Design 3.0
- SGD 113 Simulation and Game Development Programming 3.0
- SGD 114 3D Modeling 3.0

Total Credits 12

Simulation and Game Development Certificate Specialization in Simulation and Game Development Level II (C25450-22)

Major Requirements
- SGD 232 Survey of Game Engines 3.0
- SGD 212 Simulation and Game Development Design II 3.0
- SGD 213 Simulation Game Development Programming II 3.0
- SGD 214 3D Modeling II 3.0

Total Credits 12

Simulation and Game Development Certificate Specialization in Mobile Game Development (C25450-23)

Major Requirements
- SGD 113 Simulation and Game Development Programming 3.0
- SGD 213 Simulation Game Development Programming II 3.0
- SGD 168 Mobile Simulation and Game Programming I 3.0
- SGD 268 Mobile Simulation and Game Programming II 3.0

Total Credits 12
Surgical Technology

The Surgical Technology curriculum prepares individuals to assist in the care of the surgical patient in the operating room and to function as a member of the surgical team. Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations. Graduates of this program will be eligible to take the Liaison Council’s Certification Examination for Surgical Technologists. Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physician’s offices and central supply processing units.

Surgical Technology (A45740)

Degree Awarded

The Associate in Applied Science in Surgical Technology is awarded by the College upon graduation from the program.

Admissions

• Complete a CPCC application.
• Complete the Surgical Technology program application process.
• Submit official high school and college transcripts.
• Take required placement tests (ACCUPLACER and TEAS).
• Meet with counselors in Central High 212. Call 704.330.6433 for an appointment.
• Biology is required for SUR admission.
• Complete high school or college-level biology (BIO 110 or above) with a “C” or better within the last 10 years.
• Biology must be completed with a grade “C” or better prior to applying to the program.
• Applications should also contain proof of completion of courses that are part of the SUR curriculum.
• Applicants must also present evidence of good physical and mental health.
• Many courses have prerequisites or co-requisites; check the Courses section for details.

Transfer Policy

This policy applies to the student who is seeking transfer into the Surgical Technology program. The policy gives consideration to the student who has been enrolled in a surgical technology program elsewhere, has successfully completed one or more surgical technology courses by earning a letter grade of “C” or better, is seeking to continue and complete the Associate Degree Surgical Technology Program at Central Piedmont Community College. A minimum of 21 credit hours must be earned at CPCC for degree conferment. Transfer consideration is based on space availability. For more information, call the program chair at 704.330.6716.

Notes

In addition to tuition and textbooks, costs of this program include the following: uniform scrubs, student ID badge, eye protection, a physical examination including nine panel drug screening test, immunizations such as tetanus toxoid, hepatitis B, influenza vaccinations, TB test, blood tests (VDRL, rubella titer, etc.) and a current CPR with AED certification and a criminal background check. The student must also provide a certificate of current health and accident insurance.

In order to progress in this program, students must earn a “C” or better in all curriculum courses and be successful in clinical skills assessments.

In order to participate in clinical education experiences at healthcare facilities, students are required to submit results of a North Carolina state and national criminal background check and drug screen at their own expense. As a condition of this program admission, students will be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

Contact Information

The Surgical Technology program is in the Nursing, Human Services and Health Education Division. For information, call 704.330.6496 weekdays from 8 a.m.–5 p.m. Division offices are located in the Belk (BL) Building 3rd floor.

For an admission packet, frequently asked questions and other information. Check out our program website at www.cpcc.edu/nursing_human_services/surgical-technology-a45740.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td></td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td></td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
<td></td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
<td></td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td></td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td></td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td></td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td></td>
</tr>
<tr>
<td>PHI 215</td>
<td>Philosophical Issues</td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td></td>
</tr>
</tbody>
</table>
### College-Level Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

- COM 110 Introduction to Communication
- COM 120 Intro to Interpersonal Communication
- COM 231 Public Speaking

### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUR 110</td>
<td>Intro to Surgical Technology</td>
</tr>
<tr>
<td>SUR 111</td>
<td>Periop Patient Care</td>
</tr>
<tr>
<td>SUR 122</td>
<td>Surgical Procedures I</td>
</tr>
<tr>
<td>SUR 123</td>
<td>Sur Clinical Practice I</td>
</tr>
<tr>
<td>SUR 134</td>
<td>Surgical Procedures II</td>
</tr>
<tr>
<td>SUR 135</td>
<td>SUR Clinical Practice II</td>
</tr>
<tr>
<td>SUR 137</td>
<td>Prof Success Prep</td>
</tr>
<tr>
<td>SUR 210</td>
<td>Advanced Sur Clinical Practice</td>
</tr>
<tr>
<td>SUR 211</td>
<td>Advanced Theoretical Concepts</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>BIO 175</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
</tr>
<tr>
<td>MED 121</td>
<td>Medical Terminology I</td>
</tr>
<tr>
<td>SUR 212</td>
<td>Surgical Clinical Supplement</td>
</tr>
</tbody>
</table>

Total Credits 73

**Note**

Students who do not take program-related courses for a one-year period must reenter the program under the Catalog in effect at the time of reentry.

### Contact Information

Sustainability Technologies is in the Science Division. For more information, contact Matt Miller at 704.330.6836 or visit our website at www.cpcc.edu/science.

### General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
</tbody>
</table>

Select 3 credits of the following: 3.0

- ENG 112  Argument-Based Research
- ENG 113  Literature-Based Research
- ENG 114  Professional Research & Reporting
- COM 110  Introduction to Communication
- COM 231  Public Speaking

Select 3 credits of the following: 3.0

- ART 111  Art Appreciation
- ART 142  Art History Survey I
- ART 155  Art History Survey II
- ART 116  Survey of American Art
- ART 117  Non-Western Art History
- DAN 110  Dance Appreciation
- DAN 211  Dance History I
- DAN 212  Dance History II
- DRA 111  Theatre Appreciation
- DRA 112  Literature of the Theatre
- DRA 122  Oral Interpretation
- ENG 231  American Literature I
- ENG 232  American Literature II
- ENG 241  British Literature I
- ENG 242  British Literature II
- ENG 251  Western World Literature I
- ENG 252  Western World Literature II
- HUM 130  Myth in Human Culture
- HUM 160  Introduction to Film
- HUM 211  Humanities I
- HUM 212  Humanities II
- MUS 110  Music Appreciation
- MUS 112  Introduction to Jazz
- MUS 210  History of Rock Music
- MUS 213  Opera and Musical Theatre
- PHI 220  Western Philosophy I

No diplomas offered.

No certificates offered.

### Sustainability Technologies

The Sustainability Technologies Associates degree curriculum is based on a core of required science and engineering courses and feature two specialty tracks that will prepare technicians to meet workforce demands for highly skilled workers. The required, core courses will include math, physics, biology, ecology, sustainability, CAD, and renewable energy courses. Students will also be required to master technical training courses with topics including energy, environmentalism, engineering and their economic and social impacts.

### Sustainability Technologies (A40370)

**Degree Awarded**

The Associate in Applied Science degree – Sustainability Technologies will be awarded by the College upon completion of this program.

**Admissions**

- A high school diploma or equivalent is required.

- CPCC placement tests are required in English and mathematics. Developmental classes in mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Students should see a faculty advisor before registration.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

**Note**

Students who do not take program-related courses for a one-year period must reenter the program under the Catalog in effect at the time of reentry.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
<td></td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td></td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td></td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV 110</td>
<td>Environmental Science</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 110</td>
<td>Introduction to Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 120</td>
<td>Energy Use Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 210</td>
<td>Issues in Sustainability</td>
<td>3.0</td>
</tr>
<tr>
<td>ENV 110A</td>
<td>Environmental Science Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 151</td>
<td>CAD I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENV 226</td>
<td>Environmental Law</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 250</td>
<td>Sustainability Capstone Project</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 152</td>
<td>CAD II</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Conceptual Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 110A</td>
<td>Conceptual Physics Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>LID 111</td>
<td>Low Impact Development Design Principles</td>
<td>3.0</td>
</tr>
</tbody>
</table>

or ELC 111 Introduction to Electricity

**Energy/Bldng Track**

Complete one of two groups (See below) 12.0

**Technical Electives**

Select 5 credits of the following: 5.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SST 140</td>
<td>Green Building and Design Concepts</td>
<td></td>
</tr>
<tr>
<td>BUS 139</td>
<td>Entrepreneurship I</td>
<td></td>
</tr>
<tr>
<td>BUS 230</td>
<td>Small Business Management</td>
<td></td>
</tr>
<tr>
<td>COE 112</td>
<td>Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>COE 122</td>
<td>Co-Op Work Experience II</td>
<td></td>
</tr>
<tr>
<td>ENV 220</td>
<td>Applied Ecology</td>
<td></td>
</tr>
<tr>
<td>ENV 120</td>
<td>Earth Science</td>
<td></td>
</tr>
<tr>
<td>ENV 242</td>
<td>Land Quality</td>
<td></td>
</tr>
<tr>
<td>GEO 131</td>
<td>Physical Geography I</td>
<td></td>
</tr>
<tr>
<td>GEL 120</td>
<td>Physical Geology</td>
<td></td>
</tr>
<tr>
<td>GEL 230</td>
<td>Environmental Geology</td>
<td></td>
</tr>
<tr>
<td>ALT 221</td>
<td>Advanced Photovoltaic System Designs</td>
<td></td>
</tr>
<tr>
<td>ALT 110</td>
<td>Biofuels I</td>
<td></td>
</tr>
<tr>
<td>ARC 112</td>
<td>Construction Materials &amp; Methods</td>
<td></td>
</tr>
<tr>
<td>CIV 210</td>
<td>Engineering Materials</td>
<td></td>
</tr>
<tr>
<td>CIV 230</td>
<td>Construction Estimating</td>
<td></td>
</tr>
<tr>
<td>LAR 120</td>
<td>Sustainable Development</td>
<td></td>
</tr>
<tr>
<td>LAR 111</td>
<td>Introduction to Landscape Architecture Technology</td>
<td></td>
</tr>
<tr>
<td>LAR 113</td>
<td>Residential Landscape Design</td>
<td></td>
</tr>
<tr>
<td>EGR 120</td>
<td>Engineering and Design Graphics</td>
<td></td>
</tr>
<tr>
<td>MEC 111</td>
<td>Machine Processes I</td>
<td></td>
</tr>
<tr>
<td>MEC 161</td>
<td>Manufacturing Processes I</td>
<td></td>
</tr>
<tr>
<td>MEC 180</td>
<td>Engineering Materials</td>
<td></td>
</tr>
<tr>
<td>MEC 265</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>ISC 212</td>
<td>Metrology</td>
<td></td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 140</td>
<td>Environmental Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 140A</td>
<td>Environmental Biology Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 131</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 131A</td>
<td>Introduction to Chemistry Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 132</td>
<td>Organic and Biochemistry</td>
<td></td>
</tr>
<tr>
<td>SRV 111</td>
<td>Surveying II</td>
<td></td>
</tr>
<tr>
<td>AHR 111</td>
<td>HVACR Electricity</td>
<td></td>
</tr>
<tr>
<td>AHR 112</td>
<td>Heating Technology</td>
<td></td>
</tr>
<tr>
<td>AHR 113</td>
<td>Comfort Cooling</td>
<td></td>
</tr>
<tr>
<td>ELC 112</td>
<td>DC/AC Electricity</td>
<td></td>
</tr>
<tr>
<td>ELC 113</td>
<td>Residential Wiring</td>
<td></td>
</tr>
<tr>
<td>ELC 118</td>
<td>National Electrical Code</td>
<td></td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td></td>
</tr>
<tr>
<td>CMT 214</td>
<td>Planning and Scheduling</td>
<td></td>
</tr>
<tr>
<td>CMT 216</td>
<td>Costs and Productivity</td>
<td></td>
</tr>
<tr>
<td>SRV 230</td>
<td>Subdivision Planning</td>
<td></td>
</tr>
<tr>
<td>CIV 212</td>
<td>Environmental Planning</td>
<td></td>
</tr>
<tr>
<td>ALT 220</td>
<td>Photovoltaic System Technology</td>
<td></td>
</tr>
<tr>
<td>ALT 240</td>
<td>Wind and Hydro Power Systems</td>
<td></td>
</tr>
<tr>
<td>ARC 111</td>
<td>Introduction to Architectural Technology</td>
<td></td>
</tr>
<tr>
<td>ARC 210</td>
<td>Intro to Sustain Design</td>
<td></td>
</tr>
<tr>
<td>ARC 230</td>
<td>Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>CAR 110</td>
<td>Introduction to Carpentry</td>
<td></td>
</tr>
<tr>
<td>CAR 114</td>
<td>Residential Building Codes</td>
<td></td>
</tr>
<tr>
<td>CIV 110</td>
<td>Statics/Strength of Mater</td>
<td></td>
</tr>
<tr>
<td>CIV 111</td>
<td>Soils and Foundations</td>
<td></td>
</tr>
<tr>
<td>DBA 110</td>
<td>Database Concepts</td>
<td></td>
</tr>
<tr>
<td>ENV 218</td>
<td>Environmental Health</td>
<td></td>
</tr>
<tr>
<td>ENV 224</td>
<td>Land Resource Management</td>
<td></td>
</tr>
<tr>
<td>GIS 121</td>
<td>Georeferencing &amp; Mapping</td>
<td></td>
</tr>
<tr>
<td>MEC 250</td>
<td>Statics &amp; Strength of Materials</td>
<td></td>
</tr>
<tr>
<td>MEC 267</td>
<td>Thermal Systems</td>
<td></td>
</tr>
<tr>
<td>MEC 270</td>
<td>Machine Design</td>
<td></td>
</tr>
<tr>
<td>MEC 275</td>
<td>Engineering Mechanisms</td>
<td></td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHY 132</td>
<td>Physics-Electricity &amp; Magnetism</td>
<td></td>
</tr>
<tr>
<td>SRV 110</td>
<td>Surveying I</td>
<td></td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>CMT 210</td>
<td>Construction Management Fundamentals</td>
<td></td>
</tr>
<tr>
<td>BPR 130</td>
<td>Print Reading-Construction</td>
<td></td>
</tr>
<tr>
<td>CIV 211</td>
<td>Hydraulics and Hydrology</td>
<td></td>
</tr>
<tr>
<td>SRV 210</td>
<td>Surveying III</td>
<td></td>
</tr>
<tr>
<td>SRV 211</td>
<td>Introduction to Hydrology</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits** 70

**Energy/Bldng Tracks**

**Group 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT 120</td>
<td>Renewable Energy Technologies</td>
<td>3.0</td>
</tr>
<tr>
<td>SST 130</td>
<td>Modeling Renewable Energy</td>
<td>3.0</td>
</tr>
<tr>
<td>ALT 250</td>
<td>Thermal Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

221
Turfgrass Management Technology

The Turfgrass Management Technology Curriculum is designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of turfgrass management principles and practices are included in the program of study.

Course work includes plant science, plant materials, propagation, soils, fertilizers and pest management. Turfgrass Management Technology is a program that focuses on turfgrass and related groundcover plants and prepares individuals to develop ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. Also included are courses in turfgrass management, irrigation, ornamental horticulture, soil science, entomology and plant pathology, as well as courses in communications, computers and the social sciences.

Graduates should qualify for employment opportunities in landscape operations, golf courses, local, state and national parks; sports complexes;
highway vegetation and turf maintenance companies; and private and public gardens. Graduates should also be prepared to take the licensed pesticide applicators examinations.

**Turfgrass Management Technology (A15420)**

**Degree Awarded**

The Associate in Applied Science in Turfgrass Management Technology is awarded by the College upon completion of this program.

**Admissions**

- A high school diploma or equivalent (available through CPCC) is required.
- CPCC placement tests are required in English and Mathematics. Developmental Studies Mathematics and English courses are available for students to build basic skills and knowledge.
- A counseling/orientation appointment follows placement testing.
- Many courses have prerequisites or co-requisites; check the Courses section for details.

**Contact Information**

The Turfgrass Management Technology program is in the Professional Careers Division. For more information call 704.330.4827.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
</tbody>
</table>

Select 3 credits of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 111</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td></td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td></td>
</tr>
<tr>
<td>ART 116</td>
<td>Survey of American Art</td>
<td></td>
</tr>
<tr>
<td>ART 117</td>
<td>Non-Western Art History</td>
<td></td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td></td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td></td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRF 110</td>
<td>Introduction Turfgrass Cultivation &amp; Id And Identification</td>
<td>4.0</td>
</tr>
<tr>
<td>TRF 240</td>
<td>Turfgrass Pest Control</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 120</td>
<td>Turfgrass Irrigation and Design</td>
<td>4.0</td>
</tr>
<tr>
<td>HOR 166</td>
<td>Soils and Fertilizers</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 210</td>
<td>Turfgrass Eqmt Mgmt</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 152</td>
<td>Landscape Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 230</td>
<td>Turfgrass Mgmt Apps</td>
<td>2.0</td>
</tr>
<tr>
<td>TRF 260</td>
<td>Adv Turfgrass Mgmt</td>
<td>4.0</td>
</tr>
<tr>
<td>TRF 220</td>
<td>Turfgrass Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>HOR 160</td>
<td>Plant Materials I</td>
<td>3.0</td>
</tr>
<tr>
<td>HOR 162</td>
<td>Applied Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>COE 111</td>
<td>Co-Op Work Experience I</td>
<td>1.0</td>
</tr>
<tr>
<td>TRF 250</td>
<td>Golf /Sport Field Const</td>
<td>4.0</td>
</tr>
<tr>
<td>SPA 120</td>
<td>Spanish for the Workplace</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Technical Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
</tr>
<tr>
<td>DRA 112</td>
<td>Literature of the Theatre</td>
</tr>
<tr>
<td>DRA 122</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Western Philosophy II</td>
</tr>
<tr>
<td>PHI 230</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
</tbody>
</table>
Turfgrass Management Technology Diploma (D15420)

This diploma is designed to prepare individuals for entry level positions in the area of Turfgrass Management Technology. Coursework includes turfgrass culture and identification, equipment, irrigation, pest management and soils and fertilizers, along with other turf-related courses and general education courses.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 Expository Writing</td>
<td></td>
</tr>
<tr>
<td>MAT 115 Mathematical Models</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TRF 110 Introduction Turfgrass Cultivation &amp; Id And Identification</td>
<td>4.0</td>
</tr>
<tr>
<td>TRF 210 Turfgrass Eqmt Mgmt</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 230 Turfgrass Mgmt Apps</td>
<td>2.0</td>
</tr>
<tr>
<td>HOR 166 Soils and Fertilizers</td>
<td>3.0</td>
</tr>
<tr>
<td>TRF 120 Turfgrass Irrigation and Design</td>
<td>4.0</td>
</tr>
<tr>
<td>HOR 164 Horticultural Pest Management</td>
<td>3.0</td>
</tr>
<tr>
<td>SPA 120 Spanish for the Workplace</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Electives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 14 credits of the following:</td>
<td>14.0</td>
</tr>
<tr>
<td>TRF 250 Golf /Sport Field Const</td>
<td></td>
</tr>
<tr>
<td>HOR 114 Landscape Construction</td>
<td></td>
</tr>
<tr>
<td>HOR 116 Landscape Management I</td>
<td></td>
</tr>
<tr>
<td>HOR 257 Arboriculture Practices</td>
<td></td>
</tr>
<tr>
<td>HOR 265 Advanced Plant Materials</td>
<td></td>
</tr>
<tr>
<td>TRF 293</td>
<td></td>
</tr>
<tr>
<td>COE 112 Co-Op Work Experience I</td>
<td></td>
</tr>
<tr>
<td>TRF 152 Landscape Maintenance</td>
<td></td>
</tr>
<tr>
<td>TRF 220 Turfgrass Calculations</td>
<td></td>
</tr>
<tr>
<td>HOR 112 Landscape Design I</td>
<td></td>
</tr>
<tr>
<td>HOR 160 Plant Materials I</td>
<td></td>
</tr>
<tr>
<td>HOR 162 Applied Plant Science</td>
<td></td>
</tr>
<tr>
<td>HOR 273 Horticultural Management &amp; Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Welding Technology

The Welding Technology curriculum provides students with a sound understanding of the science, technology and applications essential for successful employment in the welding and metal industry. Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection and destructive and non-destructive testing provide the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metal working industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision and welding-related self-employment.

Welding Technology (A50420)

Degree Awarded

The Associate in Applied Science - Welding Technology is awarded by the College upon completion of this program.

Admissions

- Completion of a high school diploma or equivalent is required.
- Many courses have prerequisites or co-requisites; check the Courses section for details.
Contact Information
The Welding Technology program is in the Applied Technologies Division. For more information, call 704.330.4429 or 704.330.4445.

General Education Requirements
ENG 111 Expository Writing 3.0
ENG 114 Professional Research & Reporting 3.0
Select one of the following: 3.0
MAT 115 Mathematical Models
MAT 140 Survey of Mathematics
MAT 161 College Algebra
Select 3 credits of the following: 3.0
ANT 210 General Anthropology
ANT 220 Cultural Anthropology
ECO 151 Survey of Economics
ECO 251 Principles of Microeconomics
ECO 252 Principles of Macroeconomics
GEO 111 World Regional Geography
HIS 111 World Civilizations I
HIS 112 World Civilizations II
HIS 131 American History I
HIS 132 American History II
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations
PSY 150 General Psychology
PSY 241 Developmental Psychology
PSY 281 Abnormal Psychology
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 225 Social Diversity
ANT 221 Comparative Cultures
POL 110 Introduction to Political Science
PSY 237 Social Psychology
SOC 220 Social Problems
COM 110 Introduction to Communication 3.0
or COM 231 Public Speaking
Select 3 credits of the following: 3.0
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
DAN 221 Advanced Modern Dance I
DRA 111 Theatre Appreciation
DRA 112 Literature of the Theatre
DRA 122 Oral Interpretation
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 220 Western Philosophy I
PHI 221 Western Philosophy II
PHI 230 Introduction to Logic
REL 110 World Religions
REL 111 Eastern Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America
MUS 210 History of Rock Music

Major Requirements
WLD 110 Cutting Processes 2.0
WLD 115 SMAW (Stick) Plate 5.0
WLD 121 GMAW (MIG) FCAW/Plate 4.0
WLD 131 GTAW (TIG) Plate 4.0
WLD 141 Symbols and Specifications 3.0
WLD 116 SMAW (stick) Plate/Pipe 4.0
WLD 122 GMAW (mig) Plate/Pipe 3.0
WLD 132 GTAW (tig) Plate/Pipe 3.0
WLD 231 GTAW (tig) Pipe 3.0
WLD 215 SMAW (stick) Pipe 4.0
WLD 151 Fabrication I 4.0
WLD 251 Fabrication II 3.0
WLD 261 Certification Practices 2.0
WLD 262 Inspection & Testing 3.0
WLD 143 Welding Metallurgy 2.0
or MEC 172 Introduction to Metallurgy

Technical Electives
Select 4 credits of the following: 4.0
COE 112 Co-Op Work Experience I
WLD 145 Thermoplastic Welding
WLD 111 Oxy-Fuel Welding
WLD 265 Automated Welding/Cutting
WLD 221 GMAW (mig) Pipe
WLD 112 Basic Welding Processes
ELC 111 Introduction to Electricity
MAC 111 Machining Technology I
BUS 230 Small Business Management
ISC 110 Workplace Safety
ISC 112 Industrial Safety
ISC 115 Construction Safety
WLD 270 Orbital Welding TIG/Pipe
Welding Technology Diploma (D50420)

The Welding Technology curriculum provides students with a sound understanding of the science, technology and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical applications.

Successful graduates of the Welding Technology curriculum may be employed as entry-level technicians in welding and metal working industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision and welding-related self-employment.

Diploma Awarded

A Diploma in Welding Technology is awarded by the College upon completion of this program.

Admissions

Completion of a high school diploma or equivalent is required as the foundation of a career in this area.

Contact Information

The Welding Technology program is in the Applied Technologies Division. For more information, call 704.330.4429 or 704.330.4445.

General Education Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 101</td>
<td>Applied Mathematics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD 115</td>
<td>SMAW (Stick) Plate</td>
<td>5.0</td>
</tr>
<tr>
<td>WLD 121</td>
<td>GMAW (MIG) FCAW/Plate</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 131</td>
<td>GTAW (TIG) Plate</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 141</td>
<td>Symbols and Specifications</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 116</td>
<td>SMAW (stick) Plate/Pipe</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 122</td>
<td>GMAW (mig) Plate/Pipe</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 132</td>
<td>GTAW (fog) Plate/Pipe</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 221</td>
<td>GMAW (mig) Pipe</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 231</td>
<td>GTAW (fog) Pipe</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 151</td>
<td>Fabrication I</td>
<td>4.0</td>
</tr>
<tr>
<td>CIS 111</td>
<td>Basic PC Literacy</td>
<td>2.0</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 73

• Welding Technology Certificate with a Specialization in Entry-Level Welding (C50420-C2)

• Welding Technology Certificate with a Specialization in Inert Gas Welding (C50420-C4)

• Welding Technology Certificate with a Specialization in Advanced Level Welding (C50420-C5)

• Welding Technology Certificate with a Specialization in Expert Level Welding (C50420-C6)

• Welding Technology Certificate with a Specialization in Robotic Welding and Cutting (C50420-C8)

• Welding Technology Certificate with a Specialization in Orbital GTAW Welding (C50420-C9)

• Welding Technology Certificate Specialization in G.M.A.W. of Pipe Welding (C50420-10)

Welding Technology Certificates (C50420)

The following certificates can be earned in the Welding Technology Program (A50420).

Admissions

Completion of a high school diploma or equivalent is encouraged as the foundation of a career in this area.

Contact Information

For more information, call 704.330.4429 or 704.330.4445.

Welding Technology Certificate with a Specialization in S.M.A.W. of Pipe Welding (C50420-C1)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD 115</td>
<td>SMAW (Stick) Plate</td>
<td>5.0</td>
</tr>
<tr>
<td>WLD 141</td>
<td>Symbols and Specifications</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD 116</td>
<td>SMAW (stick) Plate/Pipe</td>
<td>4.0</td>
</tr>
<tr>
<td>WLD 215</td>
<td>SMAW (stick) Pipe</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits 18

Back to Top

Welding Technology Certificate with a Specialization in Entry-Level Welding (C50420-C2)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLD 110</td>
<td>Cutting Processes</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD 115</td>
<td>SMAW (Stick) Plate</td>
<td>5.0</td>
</tr>
<tr>
<td>WLD 121</td>
<td>GMAW (MIG) FCAW/Plate</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Credits 46

• Welding Technology Certificate with a Specialization in S.M.A.W. of Pipe Welding (C50420-C1)
Welding Technology Certificate with a Specialization in Inert Gas Welding (C50420-C4)

Major Requirements
- WLD 110 Cutting Processes 2.0
- WLD 121 GMAW (MIG) FCAW/Plate 4.0
- WLD 131 GTAW (TIG) Plate 4.0
- WLD 141 Symbols and Specifications 3.0

Total Credits 13

Welding Technology Certificate with a Specialization in Advanced Level Welding (C50420-C5)

Major Requirements
- WLD 116 SMAW (stick) Plate/Pipe 4.0
- WLD 122 GMAW (mig) Plate/Pipe 3.0
- WLD 132 GTAW (tig) Plate/Pipe 3.0
- WLD 261 Certification Practices 2.0

Total Credits 12

Welding Technology Certificate with a Specialization in Expert Level Welding (C50420-C6)

Major Requirements
- WLD 231 GTAW (tig) Pipe 3.0
- WLD 215 SMAW (stick) Pipe 4.0
- WLD 221 GMAW (mig) Pipe 3.0
- WLD 262 Inspection & Testing 3.0

Total Credits 13

Welding Technology Certificate with a Specialization in Robotic Welding and Cutting (C50420-C8)

Major Requirements
- WLD 141 Symbols and Specifications 3.0
- WLD 121 GMAW (MIG) FCAW/Plate 4.0
- WLD 110 Cutting Processes 2.0
- ELC 111 Introduction to Electricity 3.0
- WLD 265 Automated Welding/Cutting 4.0

Total Credits 16

Welding Technology Certificate with a Specialization in Orbital GTAW Welding (C50420-C9)

Major Requirements
- WLD 141 Symbols and Specifications 3.0
- WLD 110 Cutting Processes 2.0
- WLD 131 GTAW (TIG) Plate 4.0
- ELC 111 Introduction to Electricity 3.0
- WLD 270 Orbital Welding TIG/Pipe 4.0

Total Credits 16

Welding Technology Certificate Specialization in G.M.A.W. of Pipe Welding (C50420-10)

Major Requirements
- WLD 110 Cutting Processes 2.0
- WLD 121 GMAW (MIG) FCAW/Plate 4.0
- WLD 141 Symbols and Specifications 3.0
- WLD 122 GMAW (mig) Plate/Pipe 3.0
- WLD 221 GMAW (mig) Pipe 3.0

Total Credits 15

Associate in General Education

General Education Goals for A.G.E. Degree (A10300)

This program is designed for students who want to take courses to meet a special personal or vocational objective. Students who intend to transfer to another college should seek the A.A., A.S., or A.F.A. degrees. Students...
who are interested in a complete career-oriented program should seek an A.A.S. degree.

**Degree Awarded**

The Associate in General Education degree is awarded by the College upon completion of 64-65 semester hours.

If a student has earned another CPCC degree, a second degree will be awarded based on transcript evaluation. The student seeking a second degree must submit an application to the CPCC Graduation Office.

Completion of a minimum of 21 credit hours earned at CPCC is required.

**For More Information**

For more information, contact Counseling and Advisement at 704.330.6433, 8 a.m.–6 p.m. to speak with an Academic Advisor or Student Counselor.

**Admissions**

Official copies of high school and all other college/university transcripts must be on file in the Student Records Office.

**Associate in General Education Course Requirements (A10300)**

**English Composition**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Select 3.0 credits of the following:</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

**Mathematics**

Select 3.0 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 115</td>
<td>Mathematical Models</td>
<td></td>
</tr>
<tr>
<td>MAT 121</td>
<td>Algebra/Trigonometry I</td>
<td></td>
</tr>
<tr>
<td>MAT 122</td>
<td>Algebra/Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 155A</td>
<td>Statistical Analysis Lab</td>
<td></td>
</tr>
<tr>
<td>MAT 167</td>
<td>Discrete Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MAT 175</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MAT 223</td>
<td>Applied Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263</td>
<td>Brief Calculus</td>
<td></td>
</tr>
<tr>
<td>MAT 263A</td>
<td>Brief Calculus Lab</td>
<td></td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
<td></td>
</tr>
</tbody>
</table>

**Natural Science**

Select 3.0 credits of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 111</td>
<td>Descriptive Astronomy</td>
<td></td>
</tr>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab</td>
<td></td>
</tr>
<tr>
<td>AST 151</td>
<td>General Astronomy I</td>
<td></td>
</tr>
<tr>
<td>AST 151A</td>
<td>General Astronomy I Lab</td>
<td></td>
</tr>
<tr>
<td>AST 152</td>
<td>General Astronomy II</td>
<td></td>
</tr>
<tr>
<td>AST 152A</td>
<td>General Astronomy II Lab</td>
<td></td>
</tr>
<tr>
<td>AST 251</td>
<td>Observational Astronomy</td>
<td></td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>BIO 120</td>
<td>Introductory Botany</td>
<td></td>
</tr>
<tr>
<td>BIO 130</td>
<td>Introductory Zoology</td>
<td></td>
</tr>
<tr>
<td>BIO 143</td>
<td>Field Biology Minicourse</td>
<td></td>
</tr>
<tr>
<td>BIO 145</td>
<td>Ecology</td>
<td></td>
</tr>
<tr>
<td>BIO 155</td>
<td>Nutrition</td>
<td></td>
</tr>
<tr>
<td>BIO 161</td>
<td>Introduction to Human Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td></td>
</tr>
<tr>
<td>BIO 168</td>
<td>Anatomy and Physiology I</td>
<td></td>
</tr>
<tr>
<td>BIO 169</td>
<td>Anatomy and Physiology II</td>
<td></td>
</tr>
<tr>
<td>BIO 175</td>
<td>General Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIO 191</td>
<td>Selected Topics in Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 193</td>
<td>Selected Topics in Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 235</td>
<td>Ornithology</td>
<td></td>
</tr>
<tr>
<td>BIO 243</td>
<td>Marine Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 275</td>
<td>Microbiology</td>
<td></td>
</tr>
<tr>
<td>CHM 115</td>
<td>Concepts in Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 115A</td>
<td>Concepts in Chemistry Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 121</td>
<td>Foundations of Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 121A</td>
<td>Foundations of Chemistry Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 130</td>
<td>General, Organic, &amp; Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 130A</td>
<td>General, Organic, &amp; Biochemistry Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 131</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 131A</td>
<td>Introduction to Chemistry Lab</td>
<td></td>
</tr>
<tr>
<td>CHM 132</td>
<td>Organic and Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHM 152</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHM 191</td>
<td>Selected Topics in Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 193</td>
<td>Selected Topics in Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 251</td>
<td>Organic Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHM 252</td>
<td>Organic Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHM 293</td>
<td>Selected Topics in Chemistry</td>
<td></td>
</tr>
<tr>
<td>GEL 111</td>
<td>Introductory Geology</td>
<td></td>
</tr>
<tr>
<td>GEL 113</td>
<td>Historical Geology</td>
<td></td>
</tr>
<tr>
<td>GEL 120</td>
<td>Physical Geology</td>
<td></td>
</tr>
<tr>
<td>GEL 220</td>
<td>Marine Geology</td>
<td></td>
</tr>
<tr>
<td>PHS 110</td>
<td>Survey of Physical Science</td>
<td></td>
</tr>
<tr>
<td>PHS 140</td>
<td>Weather and Climate</td>
<td></td>
</tr>
<tr>
<td>PHY 110</td>
<td>Conceptual Physics</td>
<td></td>
</tr>
<tr>
<td>PHY 110A</td>
<td>Conceptual Physics Lab</td>
<td></td>
</tr>
<tr>
<td>PHY 131</td>
<td>Physics-Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHY 132</td>
<td>Physics-Electricity &amp; Magnetism</td>
<td></td>
</tr>
</tbody>
</table>
### College Transfer Programs

Central Piedmont Community College offers three degrees designed for college transfer – the Associate in Arts (A.A. A10100), the Associate in Science (A.S. A10400) and the Associate in Fine Arts (A.F.A. A10200). The Associate in Arts degree emphasizes the liberal arts; the Associate in Science degree emphasizes science and mathematics; the Associate in Fine Arts degree emphasizes art, dance and music. The degree programs offer courses comparable to the freshman and sophomore levels at four-year colleges and universities.

### For More Information

Visit the Transfer Resource Center at www.cpcc.edu/ican/trc.

### Admissions

New students wishing to enter this program visit the Get Started page at http://www.cpcc.edu/getstarted/getstarted/curriculum. Current students wishing to enter this program can meet with a transfer advisor.
General Requirements
Students must complete a minimum of 64 semester hours of transfer courses including the required general education courses. A minimum of 21 semester credit hours must be earned at CPCC.

General Education Goals
See CPCC General Education Goals for College-Level Programs

Transfer Articulation Agreements
The Comprehensive Articulation Agreement (C.A.A.) (http://www.nccommunitycolleges.edu/Programs/docs/CollegeTransfer/102.51CAA_Modified_June_2010_v4.pdf) is a statewide contract between the North Carolina Community College System and the North Carolina State University System. This agreement enables students to complete lower division general education requirements at the community college and meet the respective four-year college or university equivalents by doing so.

Important Guidelines from the CAA:

The CAA assures admission to one of the 16 UNC institutions with the following stipulations:

- Admission is not assured to a specific campus or specific program or major.
- Students must have graduated from a North Carolina community college with an associate in arts or associate in science degree.
- Students must meet all requirements of the CAA.
- Students must have an overall GPA of at least 2.0 on a 4.0 scale, as calculated by the college from which they graduated, and a grade of “C” or better in all CAA courses.
- Students must be academically eligible for re-admission to the last institution attended.
- Students must meet judicial requirements of the institution to which they apply.
- Students must meet all application requirements at the receiving institution including the submission of all required documentation by stated deadlines.

Community college students who have completed the general education core will be considered to have fulfilled the institution-wide, lower-division general education requirements of the receiving institution. (**Students should check with the college or university they are planning to transfer to, or a transfer advisor, for additional information**)

Community college graduates of these programs who have earned 64 semester hours in approved transfer courses with a grade of “C” or better and an overall GPA of at least 2.0 on a 4.0 scale will receive at least 64 semester hours of academic credit upon admission to a university. Requirements for admission to some major programs may require additional pre-specialty courses beyond the courses taken at the community college. Students entering such programs may need more than two academic years of course work to complete the baccalaureate degree, depending on requirements of the program.

If a transfer student perceives that the terms of the CAA have not been honored, he or she may follow the CAA Grievance Procedure. A student may file a grievance within the first six weeks of the beginning of the term for which admission was offered at the college or university. Student obtains a CAA Student Grievance Form from the admissions office of the college or university to which he/she was admitted.

Public Universities
- Appalachian State University
- East Carolina University
- Elizabeth City State University
- Fayetteville State University
- North Carolina Agricultural and Technical State University
- North Carolina Central University
- North Carolina State University
- University of North Carolina at Asheville
- University of North Carolina at Chapel Hill
- University of North Carolina at Charlotte
- University of North Carolina at Greensboro
- University of North Carolina at Pembroke
- University of North Carolina at Wilmington
- Western Carolina University
- Winston-Salem State University

Independent Colleges and Universities
- Barton College
- Belmont Abbey College
- Bennett College
- Brevard College
- Campbell University
- Catawba College
- Chowan College
- Gardner-Webb University
- Johnson C. Smith University
- Lees-McRae College
- Livingstone College
- Louisburg College
- Mars Hill College
- Montreat College
- Mount Olive College
- North Carolina Wesleyan College
- Peace College
- Pfeiffer University
- Queens University of Charlotte
- St. Andrews Presbyterian College
- Saint Augustine’s College
- Shaw University
- Warren Wilson College
- Wingate University

Associate in Arts (A.A.)

The Associate in Arts (AA) degree is designed for students who plan to transfer to 4-year colleges and universities with majors in the Humanities, Social Sciences, and Business. The degree will transfer as a block to North Carolina public universities and other institutions which participate in the Comprehensive Articulation Agreement (CAA). Electives should be selected based on your intended major. For specific requirements, consult
a Transfer Advisor or the catalog of the 4-year school to which you plan to transfer. Electives must be chosen from transferrable coursework.

**College Transfer Associate in Arts Degree**

**English Composition**
- ENG 111 Expository Writing 3.0

Select one of the following: 3.0
- ENG 112 Argument-Based Research
- ENG 113 Literature-Based Research
- ENG 114 Professional Research & Reporting

**Natural Sciences**
Select 8 credit hours from the following discipline areas: 8.0
- Biological Sciences
  - BIO 110 Principles of Biology
  - BIO 111 General Biology I
  - BIO 112 General Biology II
  - BIO 120 Introductory Botany
  - BIO 130 Introductory Zoology
- Astronomy
  - AST 111A Descriptive Astronomy Lab and Descriptive Astronomy
- Chemistry
  - CHM 131 Introduction to Chemistry and Introduction to Chemistry Lab
  - CHM 132 Organic and Biochemistry
  - CHM 151 General Chemistry I
  - CHM 152 General Chemistry II
- Geology
  - GEL 113 Historical Geology
  - GEL 120 Physical Geology
- Physics
  - PHY 110 Conceptual Physics
  - PHY 151 College Physics I
  - PHY 152 College Physics II
  - PHY 251 General Physics I
  - PHY 252 General Physics II

**Mathematics**
Select one of the following: 3.0
- MAT 140 Survey of Mathematics
- MAT 161 College Algebra
- MAT 171 Precalculus Algebra
- MAT 172 Precalculus Trigonometry
- MAT 263A & MAT 263 Brief Calculus Lab and Brief Calculus
- MAT 271 Calculus I
- MAT 272 Calculus II
- MAT 273 Calculus III
- MAT 285 Differential Equations

**Technology**
Select one of the following: 3.0
- CIS 110 Introduction to Computers
- CIS 115 Intro to Programming & Logic

**Humanities/Fine Arts**
Select four courses from at least three of the following discipline areas: (At least one course must be a literature course. At least one course must be a communication course. Only one course may be taken in the communication discipline.)

**Art**
- ART 111 Art Appreciation
- ART 114 Art History Survey I
- ART 115 Art History Survey II
- ART 116 Survey of American Art
- ART 117 Non-Western Art History

**Communication (one is required)**
- COM 110 Introduction to Communication
- COM 120 Intro to Interpersonal Communication
- COM 231 Public Speaking

**Dance**
- DAN 110 Dance Appreciation

**Drama**
- DRA 111 Theatre Appreciation

**Foreign Languages**
- ASL 111 Elementary ASL I & ASL 181 and ASL Lab 1
- ASL 112 Elementary ASL II & ASL 182 and ASL Lab 2
- ASL 211 Intermediate ASL I & ASL 281 and ASL Lab 3
- ASL 212 Intermediate ASL II & ASL 282 and ASL Lab 4
- FRE 111 Elementary French I & FRE 181 and French Lab 1
- FRE 112 Elementary French II & FRE 182 and French Lab 2
- FRE 211 Intermediate French I & FRE 281 and French Lab 3
- FRE 212 Intermediate French II & FRE 282 and French Lab 4
- GER 111 Elementary German I & GER 181 and German Lab 1
- GER 112 Elementary German II & GER 182 and German Lab 2
- GER 211 Intermediate German I & GER 281 and German Lab 3
- GER 212 Intermediate German II & GER 282 and German Lab 4
- SPA 111 Elementary Spanish I & SPA 181 and Spanish Lab 1
- SPA 112 Elementary Spanish II & SPA 182 and Spanish Lab 2
- SPA 211 Intermediate Spanish I & SPA 281 and Spanish Lab 3
- SPA 212 Intermediate Spanish II & SPA 282 and Spanish Lab 4

**Humanities**
- HUM 115 Critical Thinking
- HUM 120 Cultural Studies
HUM 130  Myth in Human Culture
HUM 160  Introduction to Film
HUM 211  Humanities I
HUM 212  Humanities II
Literature (one is required)
ENG 231  American Literature I
ENG 232  American Literature II
ENG 241  British Literature I
ENG 242  British Literature II
ENG 251  Western World Literature I
ENG 252  Western World Literature II
Music
MUS 110  Music Appreciation
MUS 112  Introduction to Jazz
MUS 210  History of Rock Music
MUS 213  Opera and Musical Theatre
Philosophy
PHI 220  Western Philosophy I
PHI 230  Introduction to Logic
Religion
REL 110  World Religions
REL 111  Eastern Religions
REL 211  Introduction to Old Testament
REL 212  Introduction to New Testament
Social/Behavior Sciences
Select four courses from at least three of the following discipline areas. At least one course must be a history course.
Anthropology
ANT 210  General Anthropology
ANT 221  Comparative Cultures
Economics
ECO 151  Survey of Economics
ECO 251  Principles of Microeconomics
ECO 252  Principles of Macroeconomics
Geography
GEO 111  World Regional Geography
History (one is required)
HIS 111  World Civilizations I
HIS 112  World Civilizations II
HIS 131  American History I
HIS 132  American History II
Political Science
POL 110  Introduction to Political Science
POL 120  American Government
POL 210  Comparative Government
POL 220  International Relations
Psychology
PSY 150  General Psychology
PSY 237  Social Psychology
PSY 241  Developmental Psychology
PSY 281  Abnormal Psychology
Sociology
SOC 210  Introduction to Sociology
SOC 213  Sociology of the Family
SOC 220  Social Problems
SOC 225  Social Diversity
Health/PE
Select 2.0 credits from any Physical Education (PED) or Health (HEA) course
Electives
Select 18.0 credits from the list of electives below
SOC 210  Introduction to Sociology
SOC 213  Sociology of the Family
SOC 220  Social Problems
SOC 225  Social Diversity
Select 2.0 credits from any Physical Education (PED) or Health (HEA) course
Select 18.0 credits from the list of electives below
Total Credits 64
List of Electives for Associate in Arts Degree
The following CAA College Transfer Elective courses for Associate of Arts Degree completion changes periodically. For the most current list, refer to http://www.northcarolina.edu/aa/articulation/132_Transfer_Course_List_122009.pdf.
Academic/College Success Skills
ACA 122  College Transfer Success 1.0
Art
ART 111  Art Appreciation 3.0
ART 114  Art History Survey I 3.0
ART 115  Art History Survey II 3.0
ART 116  Survey of American Art 3.0
ART 117  Non-Western Art History 3.0
ART 121  Two-Dimensional Design 3.0
ART 122  Three-Dimensional Design 3.0
ART 131  Drawing I 3.0
ART 132  Drawing II 3.0
ART 135  Figure Drawing I 3.0
ART 171  Computer Art I 3.0
ART 231  Printmaking I 3.0
ART 232  Printmaking II 3.0
ART 235  Figure Drawing II 3.0
ART 240  Painting I 3.0
ART 241  Painting II 3.0
ART 242  Landscape Painting 3.0
ART 243  Portrait Painting 3.0
ART 244  Watercolor 3.0
ART 247  Jewelry I 3.0
ART 248  Jewelry II 3.0
ART 260  Photography Appreciation 3.0
ART 261  Photography I 3.0
ART 262  Photography II 3.0
ART 263  Color Photography 3.0
ART 264  Digital Photography I 3.0
ART 265  Digital Photography II 3.0
ART 266  Videography I 3.0
ART 267  Videography II 3.0
ART 271  Computer Art II 3.0
ART 281  Sculpture I 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 282</td>
<td>Sculpture II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 283</td>
<td>Ceramics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 284</td>
<td>Ceramics II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 285</td>
<td>Ceramics III</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 286</td>
<td>Ceramics IV</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 288</td>
<td>Studio</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 289</td>
<td>Museum Study</td>
<td>3.0</td>
</tr>
<tr>
<td>ACC 120</td>
<td>Principles of Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ACC 121</td>
<td>Principles of Managerial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 111</td>
<td>Elementary ASL I &amp; ASL Lab 1</td>
<td>4.0</td>
</tr>
<tr>
<td>ASL 112</td>
<td>Elementary ASL II &amp; ASL Lab 2</td>
<td>4.0</td>
</tr>
<tr>
<td>ASL 211</td>
<td>Intermediate ASL I &amp; ASL Lab 3</td>
<td>4.0</td>
</tr>
<tr>
<td>ASL 212</td>
<td>Intermediate ASL II &amp; ASL Lab 4</td>
<td>4.0</td>
</tr>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab &amp; Descriptive Astronomy</td>
<td>4.0</td>
</tr>
<tr>
<td>AST 151A</td>
<td>General Astronomy I Lab &amp; General Astronomy I</td>
<td>4.0</td>
</tr>
<tr>
<td>AST 152A</td>
<td>General Astronomy II Lab &amp; General Astronomy II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Introductory Botany</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Introductory Zoology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 143</td>
<td>Field Biology Minicourse</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 145</td>
<td>Ecology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 155</td>
<td>Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>BIO 168</td>
<td>Anatomy and Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 169</td>
<td>Anatomy and Physiology II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 175</td>
<td>General Microbiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 243</td>
<td>Marine Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 250</td>
<td>Genetics</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 275</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 137</td>
<td>Principles of Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CHM 115A</td>
<td>Concepts in Chemistry Lab &amp; Concepts in Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 130A</td>
<td>General, Organic, &amp; Biochemistry Lab &amp; General, Organic, &amp; Biochemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 130A</td>
<td>Organic and Biochemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 152</td>
<td>General Chemistry II</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 251</td>
<td>Organic Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 252</td>
<td>Organic Chemistry II</td>
<td>4.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 111</td>
<td>Voice and Diction I</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 130</td>
<td>Nonverbal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 140</td>
<td>Introduction to Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 150</td>
<td>Introduction to Mass Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 160</td>
<td>Small Group Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 232</td>
<td>Election Rhetoric</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 233</td>
<td>Persuasive Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 251</td>
<td>Debate I</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 120</td>
<td>Computing Fundamentals I</td>
<td>4.0</td>
</tr>
<tr>
<td>CSC 130</td>
<td>Computing Fundamentals II</td>
<td>4.0</td>
</tr>
<tr>
<td>CSC 134</td>
<td>C++ Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 139</td>
<td>Visual BASIC Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 151</td>
<td>JAVA Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CSC 220</td>
<td>Machine Implementation of Algorithms</td>
<td>4.0</td>
</tr>
<tr>
<td>CSC 239</td>
<td>Advanced Visual BASIC Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 111</td>
<td>Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 121</td>
<td>Law Enforcement Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 141</td>
<td>Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 115</td>
<td>Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 110</td>
<td>Dance Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 211</td>
<td>Dance History I</td>
<td>3.0</td>
</tr>
<tr>
<td>DAN 212</td>
<td>Dance History II</td>
<td>3.0</td>
</tr>
<tr>
<td>DFT 170</td>
<td>Engineering Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 120</td>
<td>Voice for Performance</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 130</td>
<td>Acting I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 131</td>
<td>Acting II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 132</td>
<td>Stage Movement</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 135</td>
<td>Acting for the Camera I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 136</td>
<td>Acting for the Camera II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 140</td>
<td>Stagecraft I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 141</td>
<td>Stagecraft II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 142</td>
<td>Costuming</td>
<td>3.0</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>DRA 145</td>
<td>Stage Make-Up</td>
<td>2.0</td>
</tr>
<tr>
<td>DRA 170</td>
<td>Play Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 171</td>
<td>Play Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 175</td>
<td>Teleplay Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 176</td>
<td>Teleplay Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 241</td>
<td>Lighting Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 243</td>
<td>Scene Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 245</td>
<td>Drafting and Scenography</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 270</td>
<td>Play Production III</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 271</td>
<td>Play Production IV</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 275</td>
<td>Teleplay Production III</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 276</td>
<td>Teleplay Production IV</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Economics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Early Childhood Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDU 144</td>
<td>Child Development I</td>
<td>3.0</td>
</tr>
<tr>
<td>EDU 145</td>
<td>Child Development II</td>
<td>3.0</td>
</tr>
<tr>
<td>EDU 146</td>
<td>Child Guidance</td>
<td>3.0</td>
</tr>
<tr>
<td>EDU 221</td>
<td>Children With Exceptionalities</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGR 150</td>
<td>Intro to Engineering</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 210</td>
<td>Intro to Electrical/Computer Engineering Lab</td>
<td>2.0</td>
</tr>
<tr>
<td>EGR 212</td>
<td>Logic System Design I</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 215</td>
<td>Network Theory I</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 216</td>
<td>Logic and Network Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>EGR 218</td>
<td>Network Theory II</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 219</td>
<td>Instrumentation &amp; Network Lab</td>
<td>1.0</td>
</tr>
<tr>
<td>EGR 220</td>
<td>Engineering Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>EGR 228</td>
<td>Intro to Solid Mechanics</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 125</td>
<td>Creative Writing I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 126</td>
<td>Creative Writing II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 133</td>
<td>Introduction to the Novel</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 253</td>
<td>The Bible As Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 261</td>
<td>World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 262</td>
<td>World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 271</td>
<td>Contemporary Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 272</td>
<td>Southern Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 273</td>
<td>African-American Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 274</td>
<td>Literature by Women</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG 275</td>
<td>Science Fiction</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>French</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRE 111</td>
<td>Elementary French I</td>
<td>4.0</td>
</tr>
<tr>
<td>FRE 112</td>
<td>Elementary French II</td>
<td>4.0</td>
</tr>
<tr>
<td>FRE 161</td>
<td>Cultural Immersion</td>
<td>3.0</td>
</tr>
<tr>
<td>FRE 221</td>
<td>French Conversation</td>
<td>3.0</td>
</tr>
<tr>
<td>FRE 211</td>
<td>Intermediate French I</td>
<td>4.0</td>
</tr>
<tr>
<td>FRE 212</td>
<td>Intermediate French II</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEO 110</td>
<td>Introduction to Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>GEO 131</td>
<td>Physical Geography I</td>
<td>4.0</td>
</tr>
<tr>
<td>GEO 132</td>
<td>Physical Geography II</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>German</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GER 111</td>
<td>Elementary German I</td>
<td>4.0</td>
</tr>
<tr>
<td>GER 112</td>
<td>Elementary German II</td>
<td>4.0</td>
</tr>
<tr>
<td>GER 161</td>
<td>Cultural Immersion</td>
<td>3.0</td>
</tr>
<tr>
<td>GER 211</td>
<td>Intermediate German I</td>
<td>4.0</td>
</tr>
<tr>
<td>GER 212</td>
<td>Intermediate German II</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Geospatial Technology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GIS 111</td>
<td>Introduction to GIS</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEA 110</td>
<td>Personal Health/Wellness</td>
<td>3.0</td>
</tr>
<tr>
<td>HEA 112</td>
<td>First Aid &amp; CPR</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 141</td>
<td>Genealogy &amp; Local History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 151</td>
<td>Hispanic Civilization</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 165</td>
<td>Twentieth-Century World</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 221</td>
<td>African-American History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 226</td>
<td>The Civil War</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 231</td>
<td>Recent American History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 236</td>
<td>North Carolina History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 260</td>
<td>History of Africa</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 261</td>
<td>East Asian History</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 262</td>
<td>Middle East History</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>HUM 115</td>
<td>Critical Thinking</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 120</td>
<td>Cultural Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 130</td>
<td>Myth in Human Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 160</td>
<td>Introduction to Film</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 211</td>
<td>Humanities I</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM 212</td>
<td>Humanities II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Journalism</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>JOU 110</td>
<td>Introduction to Journalism</td>
<td>3.0</td>
</tr>
<tr>
<td>JOU 216</td>
<td>Writing for Mass Media</td>
<td>3.0</td>
</tr>
<tr>
<td>JOU 217</td>
<td>Feature/Editorial Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 155A</td>
<td>Statistical Analysis Lab and Statistical Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 263A</td>
<td>Brief Calculus Lab and Brief Calculus</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Music</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 111</td>
<td>Fundamentals of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 121</td>
<td>Music Theory I</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 122</td>
<td>Music Theory II</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 123</td>
<td>Music Composition</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 131</td>
<td>Chorus I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 132</td>
<td>Chorus II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 135</td>
<td>Jazz Ensemble I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 136</td>
<td>Jazz Ensemble II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 141</td>
<td>Ensemble I ((B, C, E, G, P, R))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 142</td>
<td>Ensemble II ((B, E, G, P, R))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151</td>
<td>Class Music I ((R, G, I, J, L, P, S, V))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151W</td>
<td>Class Music I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151L</td>
<td>Class Music I Vocal Repertoire I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152E</td>
<td>Class Music II Preparatory Applied Music</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152I</td>
<td>Class Music II Instrumental Repertoire I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152L</td>
<td>Class Music II Vocal Repertoire II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152W</td>
<td>Class Music II Intro to Vocal Diction II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 161</td>
<td>Applied Music I</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 162</td>
<td>Applied Music II</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 173</td>
<td>Opera Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 174</td>
<td>Opera Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 221</td>
<td>Music Theory III</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 222</td>
<td>Music Theory IV</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 231</td>
<td>Chorus III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 232</td>
<td>Chorus IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 235</td>
<td>Jazz Ensemble III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 236</td>
<td>Jazz Ensemble IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 241</td>
<td>Ensemble III ((B, E, G, P, R))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 242</td>
<td>Ensemble IV ((B, E, G, P, R))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 251</td>
<td>Class Music III ((V))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 252</td>
<td>Class Music IV ((P, V))</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 253</td>
<td>Big Band</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 261</td>
<td>Applied Music III</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 262</td>
<td>Applied Music IV</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 265</td>
<td>Piano Pedagogy</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 271</td>
<td>Music History I</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 272</td>
<td>Music History II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 273</td>
<td>Opera Production III</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 274</td>
<td>Opera Production IV</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Philosophy</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PED 111</td>
<td>Physical Fitness I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 113</td>
<td>Aerobics I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 117</td>
<td>Weight Training I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 122</td>
<td>Yoga I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 128</td>
<td>Golf-Beginning</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 135</td>
<td>Fencing-Beginning</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 163</td>
<td>Kayaking-Basic</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 169</td>
<td>Orienteering</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 170</td>
<td>Backpacking</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 171</td>
<td>Nature Hiking</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 173</td>
<td>Rock Climbing</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 186</td>
<td>Dancing for Fitness</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Science</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHS 110</td>
<td>Survey of Physical Science</td>
<td>4.0</td>
</tr>
<tr>
<td>PHS 140</td>
<td>Weather and Climate</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 110</td>
<td>Conceptual Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 152</td>
<td>College Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 153</td>
<td>Modern Topics in Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 251</td>
<td>General Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 252</td>
<td>General Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 253</td>
<td>Modern Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Political Science</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Psychology</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>
College-Level Programs

PSY 231 Forensic Psychology 3.0
PSY 237 Social Psychology 3.0
PSY 241 Developmental Psychology 3.0
PSY 281 Abnormal Psychology 3.0

Religion
REL 110 World Religions 3.0
REL 111 Eastern Religions 3.0
REL 211 Introduction to Old Testament 3.0
REL 212 Introduction to New Testament 3.0
REL 221 Religion in America 3.0

Sociology
SOC 210 Introduction to Sociology 3.0
SOC 213 Sociology of the Family 3.0
SOC 220 Social Problems 3.0
SOC 225 Social Diversity 3.0
SOC 234 Sociology of Gender 3.0

Spanish
SPA 111 Elementary Spanish I 4.0
& SPA 181 and Spanish Lab 1
SPA 112 Elementary Spanish II 4.0
& SPA 182 and Spanish Lab 2
SPA 151 Hispanic Literature 3.0
SPA 161 Cultural Immersion 3.0
SPA 211 Intermediate Spanish I 4.0
& SPA 281 and Spanish Lab 3
SPA 212 Intermediate Spanish II 4.0
& SPA 282 and Spanish Lab 4
SPA 221 Spanish Conversation 3.0

Eng 114 Professional Research & Reporting

Humanities/Fine Arts
Select 3 credits of the following: 3.0
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking

Select 3 credits of the following: 3.0
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

Select 6 credits of the following: 6.0
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ASL 111 Elementary ASL I
ASL 181 ASL Lab 1
ASL 112 Elementary ASL II
ASL 182 ASL Lab 2
DAN 110 Dance Appreciation
DRA 111 Theatre Appreciation
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II
FRE 111 Elementary French I
FRE 181 French Lab 1
FRE 112 Elementary French II
FRE 182 French Lab 2
GER 111 Elementary German I
GER 181 German Lab 1
GER 112 Elementary German II
GER 182 German Lab 2
HUM 115 Critical Thinking
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 213 Opera and Musical Theatre
PHI 200 Western Philosophy I
PHI 230 Introduction to Logic
REL 110 World Religions
REL 111 Eastern Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament

Transfer in Arts Diploma (D10100)
The Transfer Diploma in Arts is awarded for the successful completion of the Associate in Arts (A.A.) general education core. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics and English composition.

This diploma serves as an indication that a student has successfully completed the general education core and assists senior institutions in transcript evaluation by avoiding course by course analysis.

Successful completion necessitates a grade of “C” or better in each core course.

Students who have earned the A.A. are not eligible.

Diploma Awarded
A Transfer in Arts Diploma is awarded by the College upon completion of this program.

Major and Related Courses Requirements
English Composition
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
</tr>
<tr>
<td>SPA 111</td>
<td>Elementary Spanish I</td>
</tr>
<tr>
<td>SPA 181</td>
<td>Spanish Lab 1</td>
</tr>
<tr>
<td>SPA 112</td>
<td>Elementary Spanish II</td>
</tr>
<tr>
<td>SPA 182</td>
<td>Spanish Lab 2</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
</tr>
<tr>
<td>MAT 155</td>
<td>Statistical Analysis</td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Select 8 credits of the following:</td>
<td>8.0</td>
</tr>
<tr>
<td>AST 111</td>
<td>Descriptive Astronomy</td>
</tr>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Introductory Zoology</td>
</tr>
<tr>
<td>CHM 131</td>
<td>Introduction to Chemistry</td>
</tr>
<tr>
<td>CHM 131A</td>
<td>Introduction to Chemistry Lab</td>
</tr>
<tr>
<td>CHM 132</td>
<td>Organic and Biochemistry</td>
</tr>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM 152</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>GEL 113</td>
<td>Historical Geology</td>
</tr>
<tr>
<td>GEL 120</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Conceptual Physics</td>
</tr>
<tr>
<td>PHY 110A</td>
<td>Conceptual Physics Lab</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHY 152</td>
<td>College Physics II</td>
</tr>
<tr>
<td><strong>Social/Behavioral Science</strong></td>
<td></td>
</tr>
<tr>
<td>Select 3 credits of the following:</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>Select 9 credits of the following:</td>
<td>9.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Social Problems</td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
</tr>
</tbody>
</table>

**List of Course Options for College Transfer Diplomas**

For College Transfer Diploma course options, refer to the course options for the A.A. (Associate in Arts) (https://nextcatalog.cpcc.edu/collegelevelprograms/collegetransferprograms/associateinaartsaa) or A.S. (Associate in Science) (https://nextcatalog.cpcc.edu/collegelevelprograms/collegetransferprograms/associateinsciencesas).

**Selecting Courses for Intended Major at the Senior Institution**

Transfer students who have chosen a major for their bachelor’s degree at a four-year institution should select courses at CPCC which align with the senior institution’s requirements for their intended major. Information about requirements for specific majors is available in the catalog and website of the senior institution, as well as from admissions representatives at the senior institution. Advisors in the Transfer Resource Center and faculty advisors are available to assist students in researching admissions requirements and recommended courses based on their educational goals.

Program requirements at senior institutions vary from school to school and while these courses align with the requirements at most institutions, it is the student’s responsibility to confirm that these courses are required at the institution where they intend to transfer. Students with questions about the examples above as well as students pursuing majors not listed should meet with a transfer advisor in the Transfer Resource Center or their faculty advisor for additional information.

No certificates offered.

**Associate in Fine Arts (A.F.A.)**

The Associate in Fine Arts Degree is designed for students who plan to transfer to a four-year college or university and major in art, dance, or music. **However, the AFA degree is not included in the Comprehensive Articulation Agreement, so transfer credit at the four-year institution will be awarded on a course-by-course basis along with the presentation of an art portfolio or an audition for dance or music.** The AFA requires 31 semester hours of general education core courses and 33 semester hours of courses in one of the following concentrations: music, art, or dance. Transfer students should contact the senior institution for specific transfer requirements.
Associate in Fine Arts Degree (64 credit hours)

A.F.A (A10200)

The Associate in Fine Arts degree is awarded for study leading toward a career in art, dance, or music. The A.F.A. degree is not included in the Comprehensive Articulation Agreement. It requires 28 semester hours of General Education, with the remaining 36-37 hours devoted to skill development in the chosen area of concentration. Transfer to a senior institution will be on a course-by-course basis along with the presentation of an art portfolio or an audition for dance or music. Students planning to transfer should contact the institution they plan to attend for specific transfer requirements.

List of General Education Core Courses for Associate in Fine Arts Degree

**English Composition**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
<td></td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
<td></td>
</tr>
</tbody>
</table>

**Natural Sciences**

Select one of the following: 4.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 111A &amp; AST 111</td>
<td>Descriptive Astronomy Lab and Descriptive Astronomy</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
<td></td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td></td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
<td></td>
</tr>
<tr>
<td>CHM 131A &amp; CHM 131</td>
<td>Introduction to Chemistry Lab and Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>GEL 113</td>
<td>Historical Geology</td>
<td></td>
</tr>
<tr>
<td>GEL 120</td>
<td>Physical Geology</td>
<td></td>
</tr>
<tr>
<td>PHY 110A &amp; PHY 110</td>
<td>Conceptual Physics Lab and Conceptual Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Mathematics**

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
<td></td>
</tr>
<tr>
<td>MAT 155A &amp; MAT 155</td>
<td>Statistical Analysis Lab and Statistical Analysis</td>
<td></td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td></td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td></td>
</tr>
</tbody>
</table>

**Technology**

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
<td></td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
<td></td>
</tr>
</tbody>
</table>

**Humanities/Fine Arts**

Select two of the following, one must be a communications course: 6.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 231</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 232</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 241</td>
<td>British Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 242</td>
<td>British Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>Western World Literature I</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 252</td>
<td>Western World Literature II</td>
<td></td>
</tr>
</tbody>
</table>

**Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td></td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td></td>
</tr>
</tbody>
</table>

**Social/Behavioral Sciences**

Select two of the following from different disciplines: 6.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td></td>
</tr>
<tr>
<td>ECO 151</td>
<td>Survey of Economics</td>
<td></td>
</tr>
<tr>
<td>ECO 251</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECO 252</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>GEO 111</td>
<td>World Regional Geography</td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td></td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td></td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td></td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC 213</td>
<td>Sociology of the Family</td>
<td></td>
</tr>
<tr>
<td>SOC 225</td>
<td>Social Diversity</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 111</td>
<td>World Civilizations I</td>
<td></td>
</tr>
<tr>
<td>HIS 112</td>
<td>World Civilizations II</td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>American History I</td>
<td></td>
</tr>
<tr>
<td>HIS 132</td>
<td>American History II</td>
<td></td>
</tr>
</tbody>
</table>

The following are specific CPCC requirements for major areas of emphasis in the Associate of Fine Arts degree

**Major area of emphasis: Art**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 114</td>
<td>Art History Survey I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 115</td>
<td>Art History Survey II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 121</td>
<td>Two-Dimensional Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 122</td>
<td>Three-Dimensional Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 131</td>
<td>Drawing I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 15

Studio art courses must meet the following criteria:

- 6 contact hours for each 3 credit studio class.
- Students must take 18 credit hours from the following list of courses, with 6 hours up to 12 total hours coming from the list designated “list one” below.

Select six of the following, with two to four from each list: 18.0

**List One**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 171</td>
<td>Computer Art I</td>
<td></td>
</tr>
<tr>
<td>ART 231</td>
<td>Printmaking I</td>
<td></td>
</tr>
<tr>
<td>ART 240</td>
<td>Painting I</td>
<td></td>
</tr>
</tbody>
</table>
ART 261 Photography I
ART 264 Digital Photography I
ART 135 Figure Drawing I
ART 281 Sculpture I
ART 283 Ceramics I
ART 266 Videography I

**List Two**
ART 132 Drawing II
ART 232 Printmaking II
ART 241 Painting II
ART 262 Photography II
ART 265 Digital Photography II
ART 235 Figure Drawing II
ART 242 Landscape Painting
ART 243 Portrait Painting
ART 244 Watercolor

Other ART courses can be taken as electives to satisfy the A.F.A. degree requirement as long as 18 credit hours of study are taken from the above list.

Total Credits 18

**Major area of emphasis: Dance**
Dancers are required to audition for acceptance into the Dance Program and to take selected courses.

**Major area of emphasis and related course requirements:**
**DANCE A10200**

**Required Courses**
- **DAN 132** Intermediate Ballet I 2.0
- **DAN 133** Intermediate Ballet II 2.0
- **DAN 142** Intermediate Modern Dance I 2.0
- **DAN 143** Intermediate Modern Dance II 2.0
- **DAN 236** Advanced Ballet I 2.0
- **DAN 237** Advanced Ballet II 2.0
- **DAN 221** Advanced Modern Dance I 2.0
- **DAN 222** Advanced Modern Dance II 2.0
- **DAN 225** Choreography I 3.0
- **DAN 226** Choreography II 3.0
- **DAN 262** Dance Performance 3.0
- **DAN 264** Dance Production 3.0
- **DAN 211** Dance History I 3.0
- **DAN 212** Dance History II 3.0

**Related (Dance Elective) Courses:**
- **DAN 130** Ballet I 2.0
- **DAN 131** Ballet II 2.0
- **DAN 140** Modern Dance I 2.0
- **DAN 141** Modern Dance II 2.0
- **DAN 134** Ballet Pointe Work 1.0
- **DAN 121** Tap Dance I 1.0
- **DAN 122** Tap Dance II 1.0
- **DAN 124** Jazz Dance I 1.0
- **DAN 125** Jazz Dance II 1.0

**Total Credits**

**Major area of emphasis: MUSIC**
The Music Program at Central Piedmont Community College (CPCC) offers students not only a solid foundation in theory, history and performance, but also enables students with a wide variety of interests to work and study together. Our faculty members are dedicated teachers and accomplished musicians.

**Major area of emphasis and related course requirements:**
**MUSIC A10200**

**Required Courses**
- **MUS 121** Music Theory I * 4.0
- **MUS 122** Music Theory II 4.0
- **MUS 221** Music Theory III 4.0
- **MUS 222** Music Theory IV 4.0
- **MUS 151P** Class Music I (piano I) * 1.0
- **MUS 152P** Class Music II (Piano II) 1.0
- **MUS 251P** Class Music III (piano iii) 1.0
- **MUS 252P** Class Music IV (piano iv) 1.0
- **MUS 141** Ensemble I 1.0
- **MUS 142** Ensemble II 1.0
- **MUS 241** Ensemble III 1.0
- **MUS 242** Ensemble IV 1.0
- **MUS 161** Applied Music I **** 2.0
- **MUS 162** Applied Music II 2.0
- **MUS 261** Applied Music III 2.0
- **MUS 262** Applied Music IV 2.0
- **MUS 271** Music History I 3.0

**Related (Music Elective) Courses**
- **MUS 110** Music Appreciation *** 3.0
- **MUS 111** Fundamentals of Music ***** 3.0
- **MUS 112** Introduction to Jazz 3.0
- **MUS 123** Music Composition 1.0
- **MUS 131** Chorus I ** 1.0
- **MUS 135** Jazz Ensemble I ** 1.0
- **MUS 141B** Ensemble I (baroque Music Consort I) ** 1.0
- **MUS 141E** Ensemble I (early Music Consort I) ** 1.0
- **MUS 141G** Ensemble I (Guitar Ensemble I) ** 1.0
- **MUS 141P** Ensemble I (Piano Ensemble I) ** 1.0
- **MUS 141R** Ensemble I (Recorder Ensemble I) ** 1.0
- **MUS 151I** Class Music I Instrumental Rep 1 1.0
- **MUS 151J** Class Music I (jazz Vocal) 1.0
- **MUS 151V** Class Music I (voice I) 1.0
- **MUS 173** Opera Production I ** 3.0
- **MUS 253** Big Band ** 1.0
- **MUS 265** Piano Pedagogy 1.0
- **MUS 272** Music History II 3.0
Placement exams are used by the Music Department to determine placement into Theory 1 or Fundamentals of Music as well as level of piano study required.

Schedule of ensembles currently offered that fulfill the Performing Ensemble requirement.

Fulfills humanities requirement.

Audition required.

Does not fulfill humanities requirement.

No diplomas offered.

No certificates offered.

**Associate in Science (A.S.)**

The Associate in Science (AS) degree is designed for students who plan to transfer to 4-year colleges and universities with in majors Biology, Chemistry, Physics, Medicine, and Engineering. The degree will transfer as a block to North Carolina public universities and other institutions which participate in the Comprehensive Articulation Agreement (CAA). Electives should be selected based on your intended major. For specific requirements, consult a Transfer Advisor or the catalog of the 4-year school to which you plan to transfer. Electives must be chosen from transferrable coursework.

**College Transfer Associate in Science Degree**

**English Composition**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Expository Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 112</td>
<td>Argument-Based Research</td>
</tr>
<tr>
<td>ENG 113</td>
<td>Literature-Based Research</td>
</tr>
<tr>
<td>ENG 114</td>
<td>Professional Research &amp; Reporting</td>
</tr>
</tbody>
</table>

**Natural Sciences**

Select one of the following sequences: 8.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
</tr>
<tr>
<td>&amp; BIO 112</td>
<td>and General Biology II</td>
</tr>
</tbody>
</table>

Biological Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHM 152</td>
<td>and General Chemistry II</td>
</tr>
</tbody>
</table>

**Chemistry**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
</tr>
<tr>
<td>&amp; PHY 152</td>
<td>and College Physics II</td>
</tr>
<tr>
<td>or PHY 251</td>
<td>General Physics I</td>
</tr>
<tr>
<td>&amp; PHY 252</td>
<td>and General Physics II</td>
</tr>
</tbody>
</table>

**Mathematics**

At least one math course at the college transfer level is required. The other course may be selected from other quantitative subjects such as computer information systems and statistics.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
</tr>
</tbody>
</table>

**Technology**

Select one of the following: 3.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
</tr>
<tr>
<td>CSC 120</td>
<td>Computing Fundamentals I</td>
</tr>
<tr>
<td>CSC 130</td>
<td>Computing Fundamentals II</td>
</tr>
<tr>
<td>CSC 134</td>
<td>C++ Programming</td>
</tr>
</tbody>
</table>

**Natural Science/Math Core Requirements**

Select 6 credit hours from the following: 6.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab &amp; AST 111</td>
</tr>
<tr>
<td>AST 151A</td>
<td>General Astronomy I Lab &amp; AST 151</td>
</tr>
<tr>
<td>AST 152A</td>
<td>General Astronomy II Lab &amp; AST 152</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Introductory Botany</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Introductory Zoology</td>
</tr>
<tr>
<td>CHM 131A</td>
<td>Introduction to Chemistry Lab &amp; CHM 131</td>
</tr>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM 152</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Computers</td>
</tr>
<tr>
<td>CIS 115</td>
<td>Intro to Programming &amp; Logic</td>
</tr>
<tr>
<td>GEL 120</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>MAT 140</td>
<td>Survey of Mathematics</td>
</tr>
<tr>
<td>MAT 155A</td>
<td>Statistical Analysis Lab &amp; MAT 155</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
</tr>
<tr>
<td>MAT 263A</td>
<td>Brief Calculus Lab &amp; MAT 263</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>PHY 110A</td>
<td>Conceptual Physics Lab &amp; PHY 110</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHY 152</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHY 251</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHY 252</td>
<td>General Physics II</td>
</tr>
</tbody>
</table>

**Natural Science/Math Electives**

Select 14 credit hours of the following: 14.0

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab &amp; AST 111</td>
</tr>
</tbody>
</table>
Central Piedmont Community College

AST 151A General Astronomy I Lab & AST 151 General Astronomy I
AST 152A General Astronomy II Lab & AST 152 General Astronomy II
AST 251 Observational Astronomy
BIO 110 Principles of Biology
BIO 111 General Biology I
BIO 112 General Biology II
BIO 120 Introductory Botany
BIO 130 Introductory Zoology
BIO 143 Field Biology Minicourse
BIO 145 Ecology
BIO 155 Nutrition
BIO 163 Basic Anatomy & Physiology
BIO 168 Anatomy and Physiology I
BIO 169 Anatomy and Physiology II
BIO 175 General Microbiology
BIO 235 Ornithology
BIO 243 Marine Biology
BIO 275 Microbiology
CHM 115A Concepts in Chemistry Lab & CHM 115 and Concepts in Chemistry
CHM 130A General, Organic, & Biochemistry Lab & CHM 130 and General, Organic, & Biochemistry
CHM 131A Introduction to Chemistry Lab & CHM 131 and Introduction to Chemistry
CHM 132 Organic and Biochemistry
CHM 151 General Chemistry I
CHM 152 General Chemistry II
CHM 251 Organic Chemistry I
CHM 252 Organic Chemistry II
CIS 110 Introduction to Computers
CIS 115 Intro to Programming & Logic
CSC 120 Computing Fundamentals I
CSC 130 Computing Fundamentals II
CSC 134 C++ Programming
CSC 151 JAVA Programming
CSC 220 Machine Implementation of Algorithms
GEO 131 Physical Geography I
GEO 132 Physical Geography II
GEL 113 Historical Geology
GEL 120 Physical Geology
GEL 220 Marine Geology
MAT 155A Statistical Analysis Lab & MAT 155 and Statistical Analysis
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 263A Brief Calculus Lab & MAT 263 and Brief Calculus
MAT 271 Calculus I
MAT 272 Calculus II
MAT 273 Calculus III
PHS 140 Weather and Climate

PHY 151 College Physics I
PHY 152 College Physics II
PHY 110A Conceptual Physics Lab & PHY 110 and Conceptual Physics
PHY 153 Modern Topics in Physics
PHY 251 General Physics I
PHY 252 General Physics II
PHY 253 Modern Physics

Humanities/Fine Arts
Select three courses from at least three of the following discipline areas. At least one course must be a literature course. One course must be a communications course.

Art
ART 111 Art Appreciation
ART 114 Art History Survey I
ART 115 Art History Survey II
ART 116 Survey of American Art
ART 117 Non-Western Art History
Communication (one is required)
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking
Dance
DAN 110 Dance Appreciation
DAN 211 Dance History I
DAN 212 Dance History II
Drama
DRA 111 Theatre Appreciation
Foreign Languages
ASL 111 Elementary ASL I & ASL 181 and ASL Lab 1
ASL 112 Elementary ASL II & ASL 182 and ASL Lab 2
ASL 211 Intermediate ASL I & ASL 281 and ASL Lab 3
ASL 212 Intermediate ASL II & ASL 282 and ASL Lab 4
FRE 111 Elementary French I & FRE 181 and French Lab 1
FRE 112 Elementary French II & FRE 182 and French Lab 2
FRE 211 Intermediate French I & FRE 281 and French Lab 3
FRE 212 Intermediate French II & FRE 282 and French Lab 4
GER 111 Elementary German I & GER 181 and German Lab 1
GER 112 Elementary German II & GER 182 and German Lab 2
GER 211 Intermediate German I & GER 281 and German Lab 3
GER 212 Intermediate German II & GER 282 and German Lab 4
SPA 111 Elementary Spanish I & SPA 181 and Spanish Lab 1
College-Level Programs

SPA 112 & SPA 182 Elementary Spanish II and Spanish Lab 2
SPA 211 & SPA 281 Intermediate Spanish I and Spanish Lab 3
SPA 212 & SPA 282 Intermediate Spanish II and Spanish Lab 4

Humanities
HUM 115 Critical Thinking
HUM 120 Cultural Studies
HUM 130 Myth in Human Culture
HUM 160 Introduction to Film
HUM 211 Humanities I
HUM 212 Humanities II

Literature (one is required)
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I
ENG 252 Western World Literature II

Music
MUS 110 Music Appreciation
MUS 112 Introduction to Jazz
MUS 210 History of Rock Music
MUS 213 Opera and Musical Theatre

Philosophy
PHI 220 Western Philosophy I
PHI 221
PHI 230 Introduction to Logic

Religion
REL 110 World Religions
REL 111 Eastern Religions
REL 211 Introduction to Old Testament
REL 212 Introduction to New Testament
REL 221 Religion in America

Social/Behavioral Sciences
Select three courses from at least three of the following disciplines. At least one course must be a history course.

Anthropology
ANT 210 General Anthropology
ANT 221 Comparative Cultures

Economics
ECO 151 Survey of Economics
ECO 251 Principles of Microeconomics
ECO 252 Principles of Macroeconomics

Geography
GEO 111 World Regional Geography

History (one is required)
HIS 111 World Civilizations I
HIS 112 World Civilizations II
HIS 131 American History I
HIS 132 American History II

Politics Science

POL 110 Introduction to Political Science
POL 120 American Government
POL 210 Comparative Government
POL 220 International Relations

Psychology
PSY 150 General Psychology
PSY 231 Forensic Psychology
PSY 237 Social Psychology
PSY 241 Developmental Psychology
PSY 281 Abnormal Psychology

Sociology
SOC 210 Introduction to Sociology
SOC 213 Sociology of the Family
SOC 220 Social Problems
SOC 225 Social Diversity

Health/PE
Select 1.0 credits from any Physical Education (PED) or Health (HEA) course

Electives
Select 5.0 credits from any list of electives below

Total Credits 68

List of General Electives for Associate in Science Degree

Academic/College Success Skills
ACA 122 College Transfer Success 1.0

Art
ART 111 Art Appreciation 3.0
ART 114 Art History Survey I 3.0
ART 115 Art History Survey II 3.0
ART 116 Survey of American Art 3.0
ART 117 Non-Western Art History 3.0
ART 121 Two-Dimensional Design 3.0
ART 122 Three-Dimensional Design 3.0
ART 131 Drawing I 3.0
ART 132 Drawing II 3.0
ART 135 Figure Drawing I 3.0
ART 171 Computer Art I 3.0
ART 231 Printmaking I 3.0
ART 232 Printmaking II 3.0
ART 235 Figure Drawing II 3.0
ART 240 Painting I 3.0
ART 241 Painting II 3.0
ART 242 Landscape Painting 3.0
ART 243 Portrait Painting 3.0
ART 244 Watercolor 3.0
ART 247 Jewelry I 3.0
ART 248 Jewelry II 3.0
ART 260 Photography Appreciation 3.0
ART 261 Photography I 3.0
ART 262 Photography II 3.0
ART 263 Color Photography 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 264</td>
<td>Digital Photography I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 265</td>
<td>Digital Photography II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 266</td>
<td>Videography I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 267</td>
<td>Videography II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 271</td>
<td>Computer Art II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 281</td>
<td>Sculpture I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 282</td>
<td>Sculpture II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 283</td>
<td>Ceramics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 284</td>
<td>Ceramics II</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 285</td>
<td>Ceramics III</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 286</td>
<td>Ceramics IV</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 288</td>
<td>Studio</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 289</td>
<td>Museum Study</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 210</td>
<td>General Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT 221</td>
<td>Comparative Cultures</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 111</td>
<td>Elementary ASL I</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; ASL 181</td>
<td>and ASL Lab 1</td>
<td></td>
</tr>
<tr>
<td>ASL 112</td>
<td>Elementary ASL II</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; ASL 182</td>
<td>and ASL Lab 2</td>
<td></td>
</tr>
<tr>
<td>ASL 211</td>
<td>Intermediate ASL I</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; ASL 281</td>
<td>and ASL Lab 3</td>
<td></td>
</tr>
<tr>
<td>ASL 212</td>
<td>Intermediate ASL II</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; ASL 282</td>
<td>and ASL Lab 4</td>
<td></td>
</tr>
<tr>
<td>AST 111A</td>
<td>Descriptive Astronomy Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; AST 111</td>
<td>and Descriptive Astronomy</td>
<td></td>
</tr>
<tr>
<td>AST 151A</td>
<td>General Astronomy I Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; AST 151</td>
<td>and General Astronomy I</td>
<td></td>
</tr>
<tr>
<td>AST 152A</td>
<td>General Astronomy II Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; AST 152</td>
<td>and General Astronomy II</td>
<td></td>
</tr>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 111</td>
<td>General Biology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 112</td>
<td>General Biology II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Introductory Botany</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Introductory Zoology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 155</td>
<td>Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 163</td>
<td>Basic Anatomy &amp; Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>BIO 168</td>
<td>Anatomy and Physiology I</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 169</td>
<td>Anatomy and Physiology II</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 235</td>
<td>Ornithology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 243</td>
<td>Marine Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIO 275</td>
<td>Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 110</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Business Law I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 137</td>
<td>Principles of Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CHM 115A</td>
<td>Concepts in Chemistry Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; CHM 115</td>
<td>and Concepts in Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 130A</td>
<td>General, Organic, &amp; Biochemistry Lab</td>
<td>4.0</td>
</tr>
<tr>
<td>&amp; CHM 130</td>
<td>and General, Organic, &amp; Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHM 132</td>
<td>Organic and Biochemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 151</td>
<td>General Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 152</td>
<td>General Chemistry II</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 251</td>
<td>Organic Chemistry I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM 252</td>
<td>Organic Chemistry II</td>
<td>4.0</td>
</tr>
<tr>
<td>COM 110</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 111</td>
<td>Voice and Diction I</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 120</td>
<td>Intro to Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 130</td>
<td>Nonverbal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 140</td>
<td>Introduction to Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 150</td>
<td>Introduction to Mass Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 160</td>
<td>Small Group Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 231</td>
<td>Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 232</td>
<td>Election Rhetoric</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 233</td>
<td>Persuasive Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>COM 251</td>
<td>Debate I</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 111</td>
<td>Introduction to Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 121</td>
<td>Law Enforcement Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>CJC 141</td>
<td>Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>CTS 115</td>
<td>Information Systems Business Concepts</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 111</td>
<td>Theatre Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 120</td>
<td>Voice for Performance</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 130</td>
<td>Acting I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 131</td>
<td>Acting II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 132</td>
<td>Stage Movement</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 135</td>
<td>Acting for the Camera I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 136</td>
<td>Acting for the Camera II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 140</td>
<td>Stagecraft I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 141</td>
<td>Stagecraft II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 142</td>
<td>Costuming</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 145</td>
<td>Stage Make-Up</td>
<td>2.0</td>
</tr>
<tr>
<td>DRA 170</td>
<td>Play Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 171</td>
<td>Play Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 175</td>
<td>Teleplay Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 176</td>
<td>Teleplay Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 241</td>
<td>Lighting Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 243</td>
<td>Scene Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA 245</td>
<td>Drafting and Scenography</td>
<td>3.0</td>
</tr>
</tbody>
</table>
**College-Level Programs**

**Economics**

- ECO 151 Survey of Economics 3.0
- ECO 251 Principles of Microeconomics 3.0
- ECO 252 Principles of Macroeconomics 3.0

**Early Childhood Education**

- EDU 144 Child Development I 3.0
- EDU 145 Child Development II 3.0
- EDU 146 Child Guidance 3.0
- EDU 221 Children With Exceptionalities 3.0

**Engineering**

- EGR 150 Intro to Engineering 2.0
- EGR 210 Intro to Electrical/Computer Engineering Lab 2.0
- EGR 212 Logic System Design I 3.0
- EGR 215 Network Theory I 3.0
- EGR 216 Logic and Network Lab 1.0
- EGR 218 Network Theory II 3.0
- EGR 219 Instrumentation & Network Lab 1.0
- EGR 220 Engineering Statics 3.0
- EGR 228 Intro to Solid Mechanics 3.0

**English**

- ENG 112 Argument-Based Research 3.0
- ENG 113 Literature-Based Research 3.0
- ENG 114 Professional Research & Reporting 3.0
- ENG 125 Creative Writing I 3.0
- ENG 126 Creative Writing II 3.0
- ENG 133 Introduction to the Novel 3.0
- ENG 231 American Literature I 3.0
- ENG 232 American Literature II 3.0
- ENG 241 British Literature I 3.0
- ENG 242 British Literature II 3.0
- ENG 251 Western World Literature I 3.0
- ENG 252 Western World Literature II 3.0
- ENG 253 The Bible As Literature 3.0
- ENG 261 World Literature I 3.0
- ENG 262 World Literature II 3.0
- ENG 271 Contemporary Literature 3.0
- ENG 272 Southern Literature 3.0
- ENG 273 African-American Literature 3.0
- ENG 274 Literature by Women 3.0
- ENG 275 Science Fiction 3.0

**French**

- FRE 111 Elementary French I 4.0
  & FRE 181 and French Lab 1 3.0
- FRE 112 Elementary French II 4.0
  & FRE 182 and French Lab 2 3.0
- FRE 161 Cultural Immersion 3.0
- FRE 211 Intermediate French I 4.0
  & FRE 281 and French Lab 3 3.0
- FRE 212 Intermediate French II 4.0
  & FRE 282 and French Lab 4 3.0
- FRE 221 French Conversation 3.0

**Geography**

- GEO 110 Introduction to Geography 3.0
- GEO 111 World Regional Geography 3.0
- GEO 131 Physical Geography I 4.0
- GEO 132 Physical Geography II 4.0

**Geospatial Technology**

- GIS 111 Introduction to GIS 3.0

**Health**

- HEA 110 Personal Health/Wellness 3.0
- HEA 112 First Aid & CPR 2.0

**History**

- HIS 111 World Civilizations I 3.0
- HIS 112 World Civilizations II 3.0
- HIS 131 American History I 3.0
- HIS 132 American History II 3.0
- HIS 141 Genealogy & Local History 3.0
- HIS 151 Hispanic Civilization 3.0
- HIS 165 Twentieth-Century World 3.0
- HIS 221 African-American History 3.0
- HIS 226 The Civil War 3.0
- HIS 231 Recent American History 3.0
- HIS 236 North Carolina History 3.0
- HIS 260 History of Africa 3.0
- HIS 261 East Asian History 3.0
- HIS 262 Middle East History 3.0

**Humanities**

- HUM 115 Critical Thinking 3.0
- HUM 120 Cultural Studies 3.0
- HUM 130 Myth in Human Culture 3.0
- HUM 160 Introduction to Film 3.0
- HUM 211 Humanities I 3.0
- HUM 212 Humanities II 3.0

**Journalism**

- JOU 110 Introduction to Journalism 3.0
- JOU 216 Writing for Mass Media 3.0
- JOU 217 Feature/Editorial Writing 3.0

**Mathematics**

- MAT 140 Survey of Mathematics 3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 141A &amp; MAT 141</td>
<td>Mathematical Concepts I Lab and Mathematical Concepts I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 155A &amp; MAT 155</td>
<td>Statistical Analysis Lab and Statistical Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 161</td>
<td>College Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 167</td>
<td>Discrete Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 171</td>
<td>Precalculus Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 172</td>
<td>Precalculus Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT 271</td>
<td>Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 272</td>
<td>Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 273</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT 285</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Music</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 111</td>
<td>Fundamentals of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 112</td>
<td>Introduction to Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 121</td>
<td>Music Theory I</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 122</td>
<td>Music Theory II</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 123</td>
<td>Music Composition</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 131</td>
<td>Chorus I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 132</td>
<td>Chorus II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 135</td>
<td>Jazz Ensemble I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 136</td>
<td>Jazz Ensemble II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 141</td>
<td>Ensemble I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 142</td>
<td>Ensemble II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151</td>
<td>Class Music I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151W</td>
<td>Class Music I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 151L</td>
<td>Class Music I Vocal Repertoire I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152E</td>
<td>Class Music II Preparatory Applied Music</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152I</td>
<td>Class Music II Instrumental Repertoire I</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152L</td>
<td>Class Music II Vocal Repertoire II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152</td>
<td>Class Music II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 152W</td>
<td>Class Music II Intro to Vocal Diction II</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 161</td>
<td>Applied Music I</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 162</td>
<td>Applied Music II</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 173</td>
<td>Opera Production I</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 174</td>
<td>Opera Production II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 210</td>
<td>History of Rock Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Opera and Musical Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS 221</td>
<td>Music Theory III</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 222</td>
<td>Music Theory IV</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS 231</td>
<td>Chorus III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 232</td>
<td>Chorus IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 235</td>
<td>Jazz Ensemble III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 236</td>
<td>Jazz Ensemble IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 241</td>
<td>Ensemble III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 242</td>
<td>Ensemble IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 251</td>
<td>Class Music III</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 252</td>
<td>Class Music IV</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 253</td>
<td>Big Band</td>
<td>1.0</td>
</tr>
<tr>
<td>MUS 261</td>
<td>Applied Music III</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS 262</td>
<td>Applied Music IV</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Philosophy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHI 220</td>
<td>Western Philosophy I</td>
<td>3.0</td>
</tr>
<tr>
<td>PHI 221</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Physical Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PED 111</td>
<td>Physical Fitness I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 113</td>
<td>Aerobics I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 117</td>
<td>Weight Training I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 122</td>
<td>Yoga I</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 128</td>
<td>Golf-Beginning</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 135</td>
<td>Fencing-Beginning</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 163</td>
<td>Kayaking-Basic</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 169</td>
<td>Orienteering</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 170</td>
<td>Backpacking</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 171</td>
<td>Nature Hiking</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 173</td>
<td>Rock Climbing</td>
<td>1.0</td>
</tr>
<tr>
<td>PED 186</td>
<td>Dancing for Fitness</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Physical Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHS 110</td>
<td>Survey of Physical Science</td>
<td>4.0</td>
</tr>
<tr>
<td>PHS 140</td>
<td>Weather and Climate</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Physics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 110A &amp; PHY 110</td>
<td>Conceptual Physics Lab and Conceptual Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 151</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 152</td>
<td>College Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 153</td>
<td>Modern Topics in Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 251</td>
<td>General Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 252</td>
<td>General Physics II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY 253</td>
<td>Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Political Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POL 110</td>
<td>Introduction to Political Science</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 120</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 210</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL 220</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Psychology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY 150</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 231</td>
<td>Forensic Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 237</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 241</td>
<td>Developmental Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSY 281</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REL 110</td>
<td>World Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 111</td>
<td>Eastern Religions</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 211</td>
<td>Introduction to Old Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 212</td>
<td>Introduction to New Testament</td>
<td>3.0</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religion in America</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Sociology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 210</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>
College-Level Programs

SOC 220 Social Problems 3.0
SOC 213 Sociology of the Family 3.0
SOC 225 Social Diversity 3.0
SOC 234 Sociology of Gender 3.0

Spanish
SPA 111 Elementary Spanish I 4.0
& SPA 181 and Spanish Lab 1
SPA 112 Elementary Spanish II 4.0
& SPA 182 and Spanish Lab 2
SPA 151 Hispanic Literature 3.0
SPA 161 Cultural Immersion 3.0
SPA 211 Intermediate Spanish I 4.0
& SPA 281 and Spanish Lab 3
SPA 212 Intermediate Spanish II 4.0
& SPA 282 and Spanish Lab 4
SPA 221 Spanish Conversation 3.0

Transfer in Science Diploma (D10400)
The Transfer in Science Diploma is awarded for the successful completion of the Associate in Science (A.S.) general education core. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics and English composition.

This diploma serves as an indication that a student has successfully completed the general education core and assists senior institutions in transcript evaluation by avoiding course by course analysis.

Successful completion necessitates a grade of “C” or better in each core course.

Students who have earned the A.S. are not eligible.

Diploma Awarded
A Transfer in Science Diploma is awarded by the College upon completion of this program.

Major and Related Course Requirements

English Composition
ENG 111 Expository Writing 3.0
Select 3 credits of the following: 3.0
ENG 112 Argument-Based Research
ENG 113 Literature-Based Research
ENG 114 Professional Research & Reporting

Humanities/Fine Arts
Select 3 credits of the following: 3.0
COM 110 Introduction to Communication
COM 120 Intro to Interpersonal Communication
COM 231 Public Speaking
Select 3 credits of the following: 3.0
ENG 231 American Literature I
ENG 232 American Literature II
ENG 241 British Literature I
ENG 242 British Literature II
ENG 251 Western World Literature I

Mathematics
Select 3 credits of the following: 3.0
MAT 171 Precalculus Algebra
MAT 172 Precalculus Trigonometry
MAT 271 Calculus I
MAT 175 Precalculus
List of Course Options for College Transfer Diplomas

For College Transfer Diploma course options, refer to the course options for the A.A. (Associate in Arts) [https://nextcatalog.cpcc.edu/collegelevelprograms/collegetransferprograms/associateinartsaa] or A.S. (Associate in Science) [https://nextcatalog.cpcc.edu/collegelevelprograms/collegetransferprograms/associateinscienceas].

Selecting Courses for Intended Major at the Senior Institution

Transfer students who have chosen a major for their bachelor's degree at a four-year institution should select courses at CPCC which align with the senior institution's requirements for their intended major. Information about requirements for specific majors is available in the catalog and website of the senior institution, as well as from admissions representatives at the senior institution. Advisors in the Transfer Resource Center and faculty advisors are available to assist students in researching admissions requirements and recommended courses based on their educational goals.

Program requirements at senior institutions vary from school to school and while these courses align with the requirements at most institutions, it is the student's responsibility to confirm that these courses are required at the institution where they intend to transfer. Students with questions about the examples above as well as students pursuing majors not listed should meet with a transfer advisor in the Transfer Resource Center or their faculty advisor for additional information.

No certificates offered.
Corporate and Continuing Education
704.330.4223
http://www.cpcc.edu/cce

Whether you’re seeking new job skills, preparing for a second career or looking for personal enrichment, Corporate and Continuing Education has what you need.

For individuals, you may choose from hundreds of non-degree courses and programs – from beginner to more advanced – to help you learn the job skills and knowledge to meet your goals. When you need industry-specific and professional certifications or exam prep to get ahead and to validate your job skills, CPCC can help. Within our job and professional enhancement programs, you will also find professional development courses that offer continuing education units (CEUs) to keep you up to date.

For employers, you need a ready, talented and knowledgeable workforce to stay competitive. Corporate and Continuing Education responds with flexible, focused programming that covers all aspects of business – from hiring to worker training through leadership and succession management. We offer fee-based public classes for employees as well as custom programming designed to meet your unique challenges.

Not sure where to start? Professionals in CPCC’s Corporate Learning Center offer no-cost discovery sessions to help your company assess organizational and training needs and design a program to meet your objectives. With custom design and delivery, training fits your work cycle, can be held onsite and will effectively target employees’ skill levels. For more recognized industry standards in management and processes, such as Lean, Six Sigma or information technology, the Corporate Learning Center gives you a one-stop resource that leverages the strengths of the entire College.

In addition to job and career enhancement, Corporate and Continuing Education offers personal enrichment programming that spans many areas of interest and all skill levels. Topics include music, fitness, dance, art, gardening, languages, cooking and much more.

Browse Corporate and Continuing Education now to learn how CPCC can help meet your ongoing learning needs. These non-degree courses and programs are offered differing days and times, including weekends, on various campuses and community locations throughout Mecklenburg County. For added access and convenience, we also offer a growing number of fully online or blended online/classroom courses.

Registration is ongoing throughout each semester. Most continuing education courses and programs do not require prerequisites, enrollment applications or transcripts. For detailed information, visit our website at www.cpcc.edu/cce.

Corporate Learning Center
704.330.4660
www.cpcc.edu/clc

The Corporate Learning Center (http://www.cpcc.edu/clc) is the College’s gateway for serving the learning and development needs of businesses and organizations in Mecklenburg County. The span of learning, the expertise and the experience make the College a uniquely-positioned resource to help meet your performance and organizational demands.

Based on our long-standing success and client requests, our service is organized into three tracks:

- **Training and Development** (http://www.cpcc.edu/clc/services/training-and-development): From process improvement (http://www.cpcc.edu/clc/services/process-improvement) to leadership (http://www.cpcc.edu/clc/services/leadership-and-management) or technical skills, CPCC offers hundreds of courses, many leading to industry-recognized credentials.
- **Organizational Effectiveness** (http://www.cpcc.edu/clc/services/organizational-effectiveness): We can guide you in building a solid learning strategy to address critical issues. Successful learning programs often require change management, succession planning and team building.
- **Workplace Learning** (http://www.cpcc.edu/clc/workplace-learning): Leverage the strength of the entire College by working with us to place students into your environments. You get fresh talent, and they experience hands-on learning, including apprenticeships (http://www.cpcc.edu/clc/workplace-learning/apprenticeshipcharlotte), co-ops (http://www.cpcc.edu/clc/workplace-learning/cooperative-education) and internships. Students interested in workplace learning opportunities may visit www.cpcc.edu/cooperative_education or call 704.330.6217.

Learn more by visiting www.cpcc.edu/cce or call 704.330.4660.

Job and Career Enhancement

Trust CPCC for the knowledge and tools you need for a successful career. Whether you’re seeking new job skills, preparing for a second career, need professional level credentials or even launching a small business, Corporate and Continuing Education has what you need. You’ll find flexible day or evening schedules, with start dates and registration ongoing throughout the year. Visit Job and Career Enhancement (https://www.cpcc.edu/cce/job-and-career-enhancement) for more information.

Courses and Programs
704.330.4223
https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs

Each semester, choose from hundreds of non-degree courses and programs – from beginner to more advanced – to help you learn the job skills and knowledge to meet your professional goals.

Our non-degree courses and programs offer flexible day or evening schedules, with start dates and registration ongoing throughout the year.

Aging Studies
http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/aging-studies

The country’s growing aging population is transforming the landscape of America. No longer are older adults considered infirm, and many are not retiring at the traditional age of 65. Our lifespan is getting longer and so too, are the learning challenges. Aging Studies, also called gerontology, is one of the fastest growing areas for study. With one in four people expected to be 65 or older by 2050, Aging Studies is increasingly attractive for the growing number of job opportunities. Courses and career
credentials in Aging Studies provide students with knowledge, skill and understanding of the aging process and the many issues associated with older adults. Programs in Aging Studies include:

**Activity Professionals**  
(http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/aging-studies/activity-professionals)  
Qualify to be an activity director in assisted living communities and nursing homes according to North Carolina state regulations, plus start earning certification with the National Certification Council for Activity Professionals. The content includes recognizing the needs of older adults as they age, activity assessments, interdisciplinary team planning, goal setting for residents, documentation in health records, resources, volunteer management and regulations and requirements that impact delivery of activities in long-term care settings.

**Aging Studies Certificate**  
Learn about the aging process and key issues affecting the entire aging population. CPCC’s Aging Studies Certificate consists of Part I, Part II and one elective. Each course covers specific topics and is designed to be stand-alone if desired. Part I focuses on issues that span the entire aging population, including the specific concerns of Alzheimer’s and hospice and palliative care. Part II continues to explore aging with specifics about nutrition and activities that help keep older adults living longer and healthier lives. The certificate requires Parts I and II and one of the following electives:

- The Process of Aging  
- Understanding Grief and Loss  
- Navigating Difficult Emotions  

**Assisted Living Administrator**  
(http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/aging-studies/assisted-living)  
This program serves individuals who want to become an assisted living administrator. Topics include resource management, management of environmental services, finance, food services, marketing, budgeting and resident care. The required preceptorship is on site of an approved assisted living community under the supervision of a state-approved preceptor.

**Resident Care Director Certificate**  
(http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/aging-studies/assisted-living/Resident-Care-Director)  
Learn the latest information on North Carolina rules and regulations in this two-part course specifically designed for assisted living resident care and wellness staff. Nurses, care providers, directors, supervisors and executive administrators will learn the proper and up-to-date policies and practices that comply with state N.C. regulations. Placement and discharge criteria, documentation and resident records, assessments, care plans, medication administration, tracking methods, as well as safety and training requirements are covered for regular assisted living and special care units. Part II focuses on the additional requirements for assisted living special care units. Students learn the regulations governing the care of persons with a diagnosis of Alzheimer’s disease or related dementias.

**Allied Healthcare**

704.330.4145  
www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/health-and-exercise  
Note: ACCUPLACER test, drug screening, criminal background check, completed adult immunizations and current medical physical are required in some healthcare programs

**Accelerated Job Training**

The following short-term job training programs may be completed in one to two semesters. Students may earn certificates of completion at the end of the training programs. All courses are patterned on requirements by national or state certifying bodies, enabling participants to sit for state or national certifying examinations. These programs are recognized by local employers, who may hire trainees upon completion of course requirements.

- Emergency Medical Technician - Basic  
(See also: Public Safety Healthcare)  
- Medical Office Administrative Procedures  
- Medical Reimbursement Specialist  
- Hospital Nursing Unit Secretary  
- Medical Transcription  
- Phlebotomy Training  
- Pharmacy Technician  
- Nurse Aide I  

**Upgrade Skills**

The following courses are designed to increase the skills of healthcare professionals:

- Advanced Coding  
- Medical Keyboarding  
- Exploring Medical Language  
- Anatomy and Physiology

**Applied Technologies**

704.330.4413 or 704.330.4411  
Applied Technologies offers non-degree courses in the four program areas of Advertising + Graphic Design, Graphic Arts and Imaging Technologies /
Flexography, Non-Destructive Examination and Welding Technology. Courses serve both the beginner and advanced student. Courses are taught by qualified, experienced professionals with classroom and industry experience.

Class dates and times vary each semester, with new classes, events and seminars, being added during the year. Call 704.330.4411 to learn more or to discuss specific needs. For business or group training, contact the Corporate Learning Center (http://www.cpcc.edu/clc) at 704.330.4660.

Advertising + Graphic Design (http://www.cpcc.edu/addesign)

Business for Designers
Creativity for Designers
Business for Designers
Tools for Designers
  • Adobe Photoshop
  • Adobe Illustrator
  • Adobe InDesign
  • Adobe Acrobat
  • Adobe Flash
  • Adobe Dreamweaver

Events and Seminars

Graphic Arts and Imaging Technology (http://www.cpcc.edu/graphic-arts) / Flexography (http://www.cpcc.edu/flexo)

Build your knowledge and skills to succeed in the printing, publishing, packaging and related industries. Non-degree courses include the following:

Computer/Desktop Publishing
  • Adobe Photoshop
  • Adobe Illustrator
  • Adobe InDesign
  • Adobe Acrobat

Graphic Communications/Printing
  • Flexography
  • Offset
  • Screen Printing

Pre-press
Computer/Desktop Publishing
  • Adobe Photoshop
  • Adobe Illustrator
  • Adobe InDesign
  • Adobe Acrobat

Various Events and Seminars

Non-Destructive Examination (http://www.cpcc.edu/ndet)

(ET) Eddy Current Testing
(MT) Magnetic Particle Testing
(PT) Liquid Penetrate Testing
(RT) Radiographic Testing
(UT) Ultrasonic Testing
(VT) Visual Testing
Level I, II, and III Training

Events and Seminars

Welding Technology (http://www.cpcc.edu/welding)

Certification

American Welding Society (AWS) Weld Certification Testing
(Position[s], Configuration[s], Alloy Type[s], and Welding Procedure Specification[s] to be specified by customer or test candidate.)

(FCAW) Flux Cored Arc Welding (flux-core)
(GMAW) Gas Metal Arc Welding (MIG)
(GTAW) Gas Tungsten Arc Welding (TIG)
(SMAW) Shielded Metal Arc Welding (stick)

Welding Technology Customized Training

For employers, the Corporate Learning Center (http://www.cpcc.edu/clc) can offer group training or assist you in sponsoring your staff in publicly offered sessions. Learn more by calling 704.330.4660.

FCAW Plate or Pipe (carbon or stainless steel)
GMAW Plate or Pipe, Short Circuit or Spray or Pulsed Spray (carbon steel, aluminum or stainless steel)
GTAW Plate or Pipe, Foot pedal or *Touch Start Control (*carbon steel, aluminum or *stainless steel)
SMAW Plate or Pipe (carbon steel or stainless steel)
Oxy-Fuel Silver Soldering (carbon steel to copper or copper to copper)
Oxy-Fuel Cutting (carbon steel)
Oxy-Fuel Brazing (carbon steel, iron or copper)
Blacksmithing/Forge Welding and Wrought Iron Fabrication
Plasma-Arc Cutting (carbon steel, aluminum or stainless steel)
Robotic GMAW, Plate (carbon or stainless steel)
Orbital GTAW, Pipe (carbon or stainless steel)

Welding/ Mechanical Drawing/Print Interpretation

Alphabet of lines/use and understanding of lines
Welding Symbols
Bill of Materials
Alternate views of Drawings
Location understanding, Azimuth/Degree, Elevation, Radius, Column Lines
Referencing and Using Supporting Documents

Welding Code and Use of Welding Procedure Specifications

Advanced/Certified Welder use of code and WPS’s
AWS Certified Welding Inspector (CWI) Training

Welding Safety

Use of Personal Protective Equipment (PPE)
General Welding Safety
Events and Seminars

Automotive, Motorsports and Related Training

704.330.4122

Transportation Systems Technologies (http://www.cpcc.edu/transport_systems) at CPCC offers a variety of non-degree training courses related to the repair and operation of vehicles and small engines. New classes may be added during the year.


Auto Body Restoration
Auto Empowerment


Body Hanging
Paint, Body and Decaling
MIG/TIG Welding
Finish Fabrication
Heavy Fabrication
Assembly

N.C. Safety and Emissions Inspection Certification

Safety and Inspection Initial Certification
OBD II Inspection Initial Certification
Safety Inspection Re-certification
OBD II Inspection Re-certification

Small Engine Repair Skills

Small Engine Repair
Small Engine Overhaul

N.C. Used Car Dealer Certification


Center for Sustainability

704.330.4223
http://www.cpcc.edu/cfs/about

A growing environmental consciousness and the evolving U.S. economy is leading many Americans to evaluate the need to live and build in a more earth-friendly and sustainable manner. This is increasing the demand for engineers, developers, builders, design professionals, consultants, home inspectors and many other professionals who are proficient in advanced sustainable or “green” building principles.

Responding to these needs, CPCC’s Sustainability Technology (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/sustainability/center-for-sustainability) is now offering LEED exam preparation courses in Green Associate (https://services.cpcc.edu/cceoutlines/GBC7000), AP-Homes (https://services.cpcc.edu/cceoutlines/GBC7001) and AP-Neighborhood Development (https://services.cpcc.edu/cceoutlines/GBC7007). For those with their AP designation, we offer programming to meet your continuing education requirements.

In addition to exam preparation, continuing education courses (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/sustainability/center-for-sustainability) include:

• Energy Efficiency in Building Design and Operation
• Life Cycle of Materials
• The New Energy Code 2009 and Energy Star 2011
• Insulation and Air Sealing Techniques for Home Builders
• Introduction to Sustainability and LEED
• Introduction to Sustainable Communities and LEED for Neighborhood Development

Additional building and trades programs, including home improvement courses in weatherization, are listed under the O.P. and W.T. Crowder Construction Institute (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/construction). Group training is also available through our Corporate Learning Center (http://www.cpcc.edu/clc).

Computer and Information Technology

704.330.4223
http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology

Computer courses train you for a new career in information technology and enhance your existing skills. From the novice user to the network system analyst, computer training has the diversity to help you achieve your lifelong learning goals.

For employers, the Corporate Learning Center (http://www.cpcc.edu/clc) can offer group training or assist you in sponsoring your staff in publicly offered sessions. Learn more by calling 704.330.4660.

Get up and running quickly with Adobe Creative Suite for digital media productions offered in both PC and Mac platforms. Click below to find the courses that best fit your needs.


AutoCAD (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad)

AutoCAD by Autodesk is the 2D drafting program which has evolved into a family of products now with a platform for 2D and 3D CAD.

Learn to use the program and its diverse applications to advance or prepare for careers in the fields of architecture, interior design, digital media and landscape design.

Basic Blueprint Reading and Sketching for CAD (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad/basic-blueprint-reading-and-sketching-for-cad)
AutoCAD 1 (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad/autocad-1)
AutoCAD 2 (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad/autocad-2)
Revit Architecture 1 - Fundamentals (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad/autocad-revit-architecture-1)
Online Course - AutoCAD (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/autocad/autocad-online)

CompTIA Certification (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/computer-training-certifications/it-certifications-and-exams)

Even in a tough economy, the field of information technology is rapidly growing. Likewise, the amount of knowledge that IT professionals must have to succeed is ever greater. With skills and confidence in CompTIA and Microsoft, you'll be in line for responsibilities and positions critical for employers to fill.

Skilled IT professionals who are unemployed or underemployed may qualify for assistance in CPCC's REACH IT (https://www.cpcc.edu/changingcareers/scholarships/reach-it) scholarship program.

CompTIA A+ Complete Certification (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/computer-training-certifications/comptia-a-exam)

Computer Programming (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/programming)

Choose from our programming courses, including:

Java SE7 Fundamentals (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/programming/java-se7-fundamentals)
Database and Business Intelligence Systems

Transform data into bottom-line results with the tools and techniques of Business Intelligence and Data Analysis.

You’ll learn to use the advanced functions of Excel and Access applications to perform modeling and analysis, plus use important math functions for statistics and forecasting.

Data Analysis and Business Modeling with Excel

Data Analysis with Access

Data Analysis with Excel

Data Analysis with Access

Data Analysis with Excel

Digital Photography

Sharpen your photography skills to advance your career or business, or perhaps for personal satisfaction.

Digital Camera Basics

Understanding the Digital SLR Camera

Digital Photographer Certificate

Adobe Lightroom

Photoshop 1 and 2

Microsoft Office Skills

Proficiency with computer office skills can be your top asset in performing in an organization or in a job search. Our hands-on approach will help you build confidence and reach your training goals.

Microsoft Word

Using Word to Create Outstanding Resumes

Access

Excel

PowerPoint

Microsoft Office Business Skills Introductory Certificate

Microsoft Office Specialist Certification (Exam Cram)

Microsoft Office for Medical Professionals Certificate

Microsoft Office Skills

Effective Time Management Using Outlook

Transform Presentations Beyond Bullet Points

Successful Project Management with Microsoft Project

Online Courses with AlphaSPROUT

CPC now offers you the full library of fully online computer technology courses with our e-learning partner AlphaSPROUT. Register at CPC and get online access for a full year of learning, plus enroll anytime throughout the semester. Courses are highly interactive and take advantage of audio, video, graphics and simulations. The full library of courses includes:

Cisco Certification
CISSP Security Professional
Web Development
CompTia A+, Network+ and Security+
Java
Microsoft Office
Oracle (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/oracle-certification-training)

Learn the functions and purpose of Oracle, an object-relational database management system. You will be able to manage data and determine how it is stored and accessed. With a series of Oracle courses, you can prepare to take the Oracle certification exams.

Oracle 11g: Introduction to SQL (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/oracle-certification-training/oracle-11g-introduction-to-sql)
Oracle 11g: Administration I (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/oracle-certification-training/oracle-11g-administration-i)
Oracle 11g: Administration II (https://services.cpcc.edu/ccoutlines/DPT7978)

Social Media and Technology (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/social-media)

Embrace the social media revolution. Whether you are new to social media or a full-fledged geek, now’s the time to conquer any social media anxiety. Get LinkedIn, join the conversation, start tweeting, go face to face as you explore the potential of social media to you personally and professionally. Courses include:

Create a Powerful LinkedIn Profile (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/social-media/create-a-powerful-linkedin-page)
Internet Research (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/social-media/internet-research)


Awaken your creative spirit with art - graphic and web development art, that is. Whether you want to learn the basics of designing, developing and maintaining your own website or learn to use shapes, colors, lines, gradient and typography to crate balance in your designs, these course are for you.

Learn more about our multi-week programs available in the areas below.

Web Designer Certificate
Web Page Design
Dynamic Behavior, Imagery and Interactivity Web Design
Design Principles and Integration for Web Design
HTML 4.01: Web Authoring Level 1
HTML 5
Cascading Style Sheets
Adobe Creative Suite Classes

• Dreamweaver 1 and 2
• Flash 1
• Photoshop 1 and 2 (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/adobe-creative-suite/photoshop-1-and-2)
• InDesign 1 (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/computer-technology/adobe-creative-suite/in-design-1)

ESL Instructor Fast-Track Training
704.330.6917 or 704.330.4223

ESL Instructor Fast-Track Training is designed for prospective or new English as a Second Language (ESL) instructors in adult basic education, community-based or mission programs. It is a two-month, 30-hour, instructor-facilitated online course on the theory and practice of adult English language teaching and learning. Participants will be able to obtain a certificate of completion and 3 CEUs in a flexible online format that does not require set meeting times or traveling costs.

Economic Recruitment
704.330.4660

Customized Training Program (http://www.cpcc.edu/clc/economic-development/customized-training)

CPCC and the N.C. Community College System support economic recruitment of employers to Mecklenburg County by providing education and skills training to employees of eligible businesses and industries. The Customized Training Program (http://www.cpcc.edu/clc/economic-development/customized-training) allows CPCC to help coordinate state and local resources needed to design and develop custom programs and training services to new hires and existing employees of business and industry, thus enabling these employers to start operations and to remain productive and profitable within the state.

N.C. Career Readiness Certificate

The N.C. Career Readiness Certificate (CRC) is an assessment-based credential designed to meet the needs of both employers and job seekers. For employers, the CRC reliably demonstrates that a potential employee has the necessary literacy, math and problem solving skills to be successful on the job. For job seekers, the CRC serves as a portable credential to showcase their respective core competencies and employability skills.


WorkKeys® is a comprehensive skills assessment tool recognized by thousands of companies in the U.S. and by state and federal agencies. The assessments can lead to a N.C. Career Readiness Certificate or fulfill the assessment requirements for teacher assistants in compliance with the
Financial services is a large and diverse sector with many career pathways available through non-degree and credential programs. Whether you’re entering the field, changing careers or need professional development and continuing education, CPCC can meet your needs.

The James R. Worrell Sr. Financial Services Institute covers topics, including accounting, banking, financial planning, securities and taxes. It also incorporates the career fields of real estate, property management, appraisal and insurance. Consumers may also take courses, including targeted needs for personal finance.

**James R. Worrell Sr. Financial Services Institute**

704.330.4223  
http://www.cpcc.edu/fsi

No Child Left Behind (NCLB) Act. Job profiling is also available through the WorkKeys® System to assist employers in making sound hiring decisions based on core employability skills that are EEOC compliant.

**Accounting**

Whether you’re just starting your education or looking to advance your career, we have accounting courses to help you meet your career objectives. Learn the basics of accounting and more, including the following courses.

- Professional Bookkeeper Certificate  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/accounting-1/professional-bookkeeper-certificate)
- Fundamentals of Accounting for Non-Financial Managers  
- Cost Accounting and Management  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/accounting-1/costaccounting)
- Cash Flow Analysis  

**Banking**

**Bank Teller**  

The Bank Teller Certificate program is designed for individuals seeking entry-level teller positions or for those new to the financial services industry. The certificate demonstrates the competencies and skills required for today’s entry-level teller positions.

**Mortgage Banking**  
[Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking)

Begin or advance your career in mortgage banking with CPCC. We offer the required pre-licensing and continuing education courses, as well as professional development courses to meet your career goals. Our courses and expert instructors keep you up to date on the most recent changes and regulations in the industry.

**Pre-Licensing and Continuing Education (CE)**

- Pre-licensing  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/mloprelicensing)
- Mortgage Loan Originator (MLO) exam prep  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/mloexamprep)

- Continuing education in mortgage banking  

**Professional Development and Consumer Education**

**Introduction to Mortgage Lending**  
[Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/mortgagelending)

- Conventional Loan Processing  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/loanprocessing)

- Introduction to Underwriting  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/underwriting)

- Introduction to FHA Lending  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/fhalending)

- Loss Mitigation Analyst: Understanding the Options  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/lossmitigation)

- Mortgage Math  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/mortgagemath)

- Reverse Mortgages for Senior Home Owners  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/reversemortgages)

- Understanding Credit  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/mortgage-banking/understandingcredit)

**Financial Planning**

**CFP® Certification Education Program**  
[Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/certified-financial-planner)

The need for objective financial advice, combined with the rigorous standards demanded of CFP certificants, has placed CFP® Certification at the forefront of the financial planning profession.

The CFP® Certification Education Program has the following seven courses which may be taken over 11 months:

- Fundamentals of Financial Planning  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/certified-financial-planner/fundamentals)

- Insurance Planning  
  [Visit](http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/certified-financial-planner/insurance-planning)

Scholarship opportunities (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/scholarship-opportunities) may be available. For additional information, download our CFP Brochure or visit the CFP Board of Standards, Inc (http://www.cfp.net).

To learn more about the CFP® credential watch our CPCC TV Spotlight (http://www.youtube.com/watch?v=D7VwxesPlbM&feature=plcp&context=C4f3fc97VDvjVQa1PpcFNJwpNybeSwLVB1HiwDwagPhg4a5Me%3D) episode.

Personal Finance (http://www.cpcc.edu/cce/personal-enrichment/finance)
The Financial Services Institute at CPCC also offers courses you need to understand your personal finances and to improve your financial future. Whether you are just graduating from high school or planning for retirement, we provide you with the knowledge and skills necessary to take charge of your finances. Courses vary, but may include:

- Budgeting Basics for Paying Off Debt (http://www.cpcc.edu/cce/personal-enrichment/finance/budgeting-basics)
- Financial Planning for Women (http://www.cpcc.edu/cce/personal-enrichment/finance/financial-planning-for-women)
- Investing for Life (http://www.cpcc.edu/cce/personal-enrichment/finance/investing-for-life)
- Investing 102: Turning your Retirement Nest Egg into a Monthly Income (http://www.cpcc.edu/cce/personal-enrichment/finance/advanced-investing-for-life)
- Retirement Planning Today (http://www.cpcc.edu/cce/personal-enrichment/finance/retirement-planning-today)

CPCC is also available for exclusive finance-related learning sessions for private groups or organizations. The Corporate Learning Center (http://www.cpcc.edu/clc) will discuss those arrangements. Call 704.330.4660 for questions or a quote.

Many investors, whether a large company or an individual, use financial services sales agents to assist and advise them when buying stocks, bonds or mutual funds. To sell these securities, an individual must pass an exam administered by the Financial Industry Regulatory Authority (FINRA). We help you prepare with our Series 7 Exam Prep (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/financial-services/securities/series7) course.

Whether you’re starting a tax career or looking to expand your tax knowledge and skills, CPCC has courses to fit your goals. Our program, a part of the Financial Services Institute, includes everything you need to meet the IRS mandated requirements for registration, testing and annual continuing education.

With our partners, The Income Tax School® (http://www.theincometaxschool.com/cpcc), we offer a series of tax preparation courses to provide an in-depth knowledge of the topics covered on the IRS Registered Tax Return Preparer Competency Exam (IRS RTRP). Courses include:

- Tax Pro Career Package - Comprehensive Tax Course
- Tax Pro Business Package - Comprehensive Tax Course
- Advanced Level 1 Income Tax
- Advanced Level 2 Income Tax
- Small Business Level 1 Income Tax
- Small Business Level 2 Income Tax
- IRS RTRP Competency Exam Review
- Tax Law Updates (3-hour CE)
- Ethics (2-hour CE)

Real Estate and Appraisal (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/real-estate)
Real estate is tied to more than one-third of the world’s wealth and offers a variety of career choices, including licensed agents who assist in buying and selling homes and commercial spaces, property appraisers, property managers, land developers and urban planners.

CPCC offers courses for every step in the real estate licensing process, along with courses to meet continuing education requirements. We also offer courses required for appraisal licensing, property management and professional development. Ready to invest? Check out our new online courses to help you invest wisely.

Real Estate
Pre-Licensing (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/real-estate/pre-licensing)
Post-Licensing (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/real-estate/post-licensing)

- Relationships and Responsibilities
- Contracts and Closings
- Special Topics

Continuing Education (CE) (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/real-estate/continuing-education) and Professional Development (http://www.cpcc.edu/cce/job-
and-career-enhancement/courses-and-programs/real-estate/real-estate/professional-development

- Real Estate Mandatory Update
- Broker-In-Charge Annual Review (BIC)
- FHA/VA Appraisals
- Homeowner Insurance
- Title Insurance
- Mortgage Fraud
- Introduction to Residential Appraisals
- Sustainable Housing and Building Green: What Agents Should Know
- Real Estate Professional Development and Consumer Education
- Real Estate Exam Prep Review
- Real Estate Math
- Becoming a Professional Real Estate Assistant
- Understanding Commercial Real Estate
- Conquering the Closing Statement
- How to Buy a Foreclosure: Deal or No Deal?
- Inspect Before You Buy

Online - Real Estate Investing

Appraisal

An appraisal is an opinion of the quality, value or utility of a specific property. Appraisals are typically required whenever real estate is sold, mortgaged, taxes, insured or developed. Appraisers may be employed by financial institutions, government agencies, real estate service corporations or they may work independently. Individuals in a career as a Real Estate Appraiser must complete N.C. Appraisal Board approved "pre-qualifying" courses for each level of Real Estate Appraisal: Registered Trainee, Certified Residential or Certified General.

CPCC is approved by the N.C. Appraisal Board to offer the courses required to become a Registered Trainee. A Registered Trainee can complete appraisals that their supervising appraiser is authorized to perform.

The 90-hour curriculum to become a Registered Trainee consists of:

Basic Appraisal Principles (30 hours)
Basic Appraisal Procedures (30 hours)
Market Analysis and Highest and Best Use (15 hours)
The Uniform Standards of Professional Appraisal Practice (15 hours)

Property Management

Residential property managers assist investment property owners and homeowners in preserving and increasing the value of their real estate investments. You will look at the rapidly evolving field of property management and explore the daily issues facing practitioners, including maintenance, accounting, administrative and legal activities. This course will benefit students looking for an introduction to property management, as well as real estate professionals looking to increase their knowledge of property management responsibilities.

Insurance Licensing

Insurance is a trillion dollar business that employs 2.5 million people in this country alone. As the population ages and wealth grows, the demand for insurance professionals will increase dramatically. Jobs in insurance involve helping individuals and businesses manage risk to protect themselves from catastrophic losses and to anticipate potential risk problems.

The N.C. Department of Insurance (NCDOI) regulates licensing for six major lines of authority. CPCC offers courses to satisfy the NCDOI's requirements to obtain a license in the following areas:

- N.C. Property Insurance
- N.C. Casualty Insurance
- N.C. Life Insurance
- N.C. Accident, Sickness and Health Insurance
- N.C. Property and Casualty Insurance

Additional course topics may include ethics in the insurance industry and flood insurance.

Fitness Professionals

Personal Trainer National Certification

A CPCC partnership with World Instructor Training Schools (WITS) allows you to become a Certified Personal Trainer to then work one-on-one with clients in fitness facilities. Study essentials on anatomy, exercise physiology, nutrition, musculoskeletal injuries, health assessments and more. Must hold current CPR certification. Additional courses are available to provide continuing education units (CEUs).

Health Information Technology

704.330.4223
http://www.cpcc.edu/health_sciences/health-information-technology
CPCC is using federal grant funding through the Office of the National Coordinator (ONC) to provide an intensive, non-degree training program in Health Information Technology (Health IT or HIT) (http://www.cpcc.edu/hitgrant). This is an online program that can be completed in six months or less for full-time students. Tuition reimbursement and job placement assistance are available for qualifying students.

Health IT allows comprehensive management of medical information and its secure exchange between health care consumers and providers. Broad use of HIT has the potential to improve health care quality, to prevent medical errors, to increase the efficiency of care provision, to decrease paperwork, to expand access to affordable care and more. Funding for this program is provided by the Office of the National Coordinator (ONC), Department of Health and Human Services (DHHS) support, under grant number 90CC0078/01. CPCC also offers a two-year degree in HIT with information available at 704.330.2722.


This 60-hour certificate will provide participants with an introduction to the event industry, including basic principles of planning and executing events, meetings and conferences. It will give students the necessary skills and tools for success and provide participants with a comprehensive understanding of the meeting and event planning industry. Students will acquire required competencies through classroom study as well as practical application, guest lectures and field trips.

**Hospitality and Event Planning**

704.330.4223

**Certificate in Floral Design** (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/hospitality/floral-design-1/floral-design-certificate)

CPCC offers a Floral Design Certificate for students who successfully complete the four required classes: Floral Design, Master Floral Design, Sympathy Flowers and Wedding Flowers.

**Certified Dietary Manager (CDM)** (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/hospitality/dietary-manager)

Approved by the Association of Nutrition and Foodservice Professionals (ANFP), this professional-level program at CPCC follows established industry requirements with coursework in food service management, human resources management, nutrition and medical nutrition therapy and food safety.

**ServSafe®** (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/hospitality/dietary-manager/servsafe-essentials)

Learn the industry standard in food safety training. The ServSafe® program provides accurate, up-to-date information for all levels of employees on every aspect of handling food, from receiving and storing to preparing and serving. This program is available for exclusive or group training by calling Corporate Learning at 704.330.4660.

**Human Resources**


Master the fundamentals in HR management, then study the finer points of employment law, recruitment, employee relations and benefits with our HR Certificate Program. This comprehensive program consists of the following five courses:


While each course may stand alone for completion certificates, all are required for the HR Certificate. Prerequisites are not required, but we recommend you start with Fundamentals (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/human-resources-and-payroll/human-resource-certificate/fundamentals-of-hr-management).

CPCC is a partner with the Society of Human Resource Management (SHRM) to offer non-degree preparation review courses, designed for individuals who want to earn certification in PHR, SPHR, or GPHR.


CPCC is proud to offer HR seminars designed for HR professional seeking recertification credit hours through HRCI. Seminars include:

- Strategic HR Metrics
- HR’s Seat at the Table
- The Training Process
- ADA, FMLA and WC: The Three-Headed HYDRA
- Ethics for Human Resources

Industry Credentials and Professional Development

APICS (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/manufacturing/apics/apics) - Certified in Production and Inventory Management

CPIM exam preparation review courses are designed for those professionals in operations and inventory management who would like to earn the professional designation Certified in Production and Inventory Management (CPIM). A weekend instructional format allows a concentrated review of topics.

Fast Track CPIM Exam Prep courses:


APICS Certified Supply Chain Professional Exam Preparation

The APICS Certified Supply Chain Professional (CSCP) program is the first comprehensive educational program designed especially for supply chain management and operations professionals. The CSCP program takes a broad view of operations, extending beyond internal operations to encompass the entire supply chain - from supplier, through the company, to the end consumer.

The program provides professionals with the knowledge necessary to understand and manage the integration and coordination of end-to-end supply chain activities. To earn the APICS CSCP designation, candidates must pass one comprehensive four-hour exam with 175 questions taken from more than 150 references.


International Learning and Study Abroad

704.330.6167
http://www.cpcc.edu/study-abroad

Gain a global perspective through travel and learning in selected programs open to community members. Such programs include studying language in Peru, Germany and Montreal, getting a taste of the cuisine and art in France, Greece and England, and exploring the emerging economies of Brazil and China. Learn more about participating in these learning adventures by calling 704.330.6167.

Language and Culture

704.330.4223
http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages

Continuing education language courses emphasize grammar, speaking and listening skills. Beginning courses may be offered in three levels:

- Level I assumes little or no prior knowledge of the language;
- Level II requires basic skill communication in short sentences or phrases;
- Level III requires basic conversational skills. Intermediate courses are designed to be taught in the target language as much as possible with little or no conversation in English.


Spanish: Beginning I, II or III; Intermediate Spanish I
Central Piedmont Community College

Beginning Chinese I, II (Mandarin) (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/chinese)

Languages for Business and Industry

CPCC offers customized occupational Spanish training for businesses and various professions. We do this through consultation and as the licensed registered provider of Command Spanish® in Charlotte and Mecklenburg County. This program provides skills to enhance job-specific communication in a variety of industries, including health care. Courses range from eight hours in length to 30 hours or more, depending on need. For information, call the Corporate Learning Center (http://www.cpcc.edu/clc) at 704.330.4660.

Manufacturing and Technical Skills

704-330-42223 or 704.330.4660

These courses address specific skill sets and hands-on applications needed in an industrial production environment. Many are adapted from longer courses to fit individual, operational and safety requirements found in manufacturing. Often courses are customized with company-specific content and the course delivery is adjusted to meet production and shift schedules. A partial listing includes:

- Basic shop practices
- Basic assembly and hand tools
- Blueprint reading
- Geometric Dimensioning and Tolerancing
- Shop math
- Metrology
- Basic and advanced machining
- Basic electricity
- Maintenance training
- Welding
- Quality inspection
- Statistical process control
- Problem-solving techniques
- Team work and communication
- Lean manufacturing
- ISO/QS awareness
- Internal Auditor
- Plant safety (first aid/CPR, bloodborne pathogens, HazCom, lock out/tag out, ergonomics, powered lift truck and others)
- OSHA 501 General Industry 10-hour and 30-hour

N.C. Professional Educators

704.330.4223
http://www.cpcc.edu/teacher-education

Renewal Credit and Lateral Entry

CPCC offers programs to help N.C. professional educators in various stages of their careers. For teachers who need to renew their state teaching license, we offer a wide variety of online, face-to-face and hybrid courses at affordable fees to provide CEUs. We also assist lateral entry teachers pursuing their initial license. Additional information is available here (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/teacher-education). Find more on renewals for lateral entry teachers here (http://www.cpcc.edu/teacher-ed). To learn about current renewal courses or to register for a class, call customer service at 704.330.4223.

If you are taking continuing education courses to renew your teaching license, you should get verification that the course(s) for which you want to register meets state requirements. Contact the Department of Public Instruction by calling 800.577.7994 (toll-free in-state).

You will also find licensure information at the N.C. DPI website (http://www.ncpublicschools.org). Please note that continuing education courses will not meet the requirements for an initial license; these courses are for licensure renewal only. For related instruction, see ESL Instructor Fast-Track Training (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/esl-instructor-fast-track).

Notary Public

704.330.4223

Notary Public classes provide a thorough introduction to the statutes that regulate the acts of North Carolina notaries public. Find additional information at the Secretary of State website here (http://www.secretary.state.nc.us/notary). The purpose of the education requirement is to enable the applicant to become a responsible, qualified candidate for Notary Public commission. This course also serves as qualification for re-commissioning of existing notaries public. Book must be purchased prior to class.


This course will instruct existing North Carolina notaries public in the legislated procedure required to exercise electronic notarial acts as set forth by the N.C. Secretary of State. Participants must hold a valid commission as a N.C. notary public to qualify for this certification. The course covers the N.C. E-Notary Act, eligibility and registration, E-notary processes, technology solutions and providers, ethics reg. E-notarizations, consequences of misconduct, security standards, best practices and departmental recommendations.

O.P. and W.T. Crowder Construction Institute

704.330.4428 or 704.330.4223
http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/construction

Brick Masonry

Introduction to Brick Masonry

A course covering the fundamental techniques and practice in the building of brick walls, steps, corners, chimneys and other brick structures.
Emphasis is placed on the correct use of the mason’s trowel, level, plumb line and tape measure. Job safety and safe work habits will be covered.

Building Codes (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/code-qualification)

Comprehensive Review of the N.C. Residential Building Code
This course offers construction supervisors and others currently working in the industry a comprehensive review of those sections of the N.C. Residential Building Code applicable in Mecklenburg County. The class includes a review of applicable state and local code interpretations and Mecklenburg County’s code inspection procedures. A county code enforcement official will observe each class and will conduct an inspection field trip where students will observe an actual code inspection and have an opportunity to ask questions and to discuss concerns.

Building Contractor Licensing (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/building-contractor-licensing)

Residential Blueprint Reading and Estimating
Learn the fundamentals of reading and interpreting residential blueprints and estimating the quantities of materials and labor required to construct a house.

Home Construction Methods and Details
This course helps the inexperienced builder to identify and evaluate information and procedures pertaining to home construction, including lot surveys, excavation and foundation construction, foundation wall, floor, wall and roof framing and much more.

Residential Contractors Exam Review
Review the laws, codes and procedures covered by the General Contractor License Examination for residential and light construction.

Building/Commercial Contractors Exam Review
Review the laws, codes and procedures covered by the General Contractor License Examination for commercial construction.

Building Trade Skills (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/carpentry)

Carpentry (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/construction/carpentry)

CPCC offers four levels of instruction in carpentry beginning with basic construction knowledge and advancing into more specialized skill areas and competencies. Each course leads to certification of competency for construction apprentices, current craft workers and others. Written and practical testing is required for area certification in each level. See also NCCER – Core.

Introduction to Carpentry
This course uses the NCCER (NCCER.org) training format and provides certificates of competency in some basic skills needed for the requirements to enter into craft training at The Crowder Construction Institute. Those interested in employment in the construction industry, remodeling existing projects, or becoming handler will also find this course a good beginning for basic skills in safety, hand tools, power tools and blueprint reading.

This course is a prerequisite for CIX7006 Carpentry II, TRM8000 Trim Molding, and CAB8300 Furniture/Cabinet Making.

Carpentry II
This course provides construction apprentices, current craft workers and others with a certification of competency in basic floor, wall, ceiling and roof framing. Completion of Carpentry I, Wheels of Learning Construction Core or documented UBC Step 2 is a prerequisite. Competency testing is required for area certification and will be both written and practical. Topics include platform floor, cantilevers, well openings, decking, snap-out, plating, detailing, metal and wood stud framing, ROs, flat, vault and coffered ceilings, gable rafters, and trusses, etc. Completion and certification in this course will allow trainees to pursue Carpentry III and IV Level course modules.

Carpentry III
Topics focus on exterior finishing operations, including shingle roof application, cornice and siding application, vinyl siding, hardboard siding, cement board siding and shake shingle siding. Pre-requisites are required and may include Carpentry I and II. Completion and certification in this course allow trainees to pursue Level IV.

Carpentry IV
This course provides a certification or competency in the basic application and installation of residential interior trim work. Topics include safety practices, plan details (floors, walls and ceiling moldings) and door and window trim (pre-hung doors, interior locks and casework installation). Competency testing is required for area certification and shall be both written and practical form. This course is recommended to potential employees by the construction industry for employment qualifications, as well as for the currently employed craft worker as certified qualifications for advancement in your career.

Electrical Code

Electrical Contractors Exam Review
This course reviews the National Electrical Code and Calculations for those who are preparing to take the examination to be licensed as an electrical contractor in North Carolina.

Green Building and Remodeling (http://www.cpcc.edu/construction/crowder-construction-institute/green-building)

Green Building and Remodeling - NARI
For both homeowners and professional builders and remodelers, this course covers the basic principles, materials and methods used in Green Building construction. This course is the National Association of the
Remodeling Industry (NARI) Green Remodeling course and qualifies for NARI Green Certified Professional certification continuing education.

See related courses under Center for Sustainability (http://www.cpcc.edu/cfs).

**Handyman Classes**

CPCC offers short courses and project-related workshops to help you improve your home. As non-degree programs, these are designed for beginners. Take advantage of hands-on assistance, ask questions, get professional tips, learn about materials, tools and more. Classes include:

**Introduction to Interior Trim Molding**

This course uses the NCCER form to provide training in the application and installation of interior residential trim. Topics covered include: safety, plan details, floor, wall and ceiling moldings, door and window trim.

**Introduction to Tile Setting**

This course will cover the different methods of home tiling, including but not limited to:

- The tools used to complete a home project.
- The different types of setting products available in the market and which one will be best suited for your application.
- The different types of tiles and the proper application for each type and size.
- The process of tear out and setting up for a new project and remodel project.
- The proper way to build or install a shower pan.
- The process of measuring and estimating tile and materials for a job.

**Introduction to Furniture/Cabinet Making**

This course uses a “hands on” approach to learning basic woodworking techniques. This provides an introduction to the properties and machining processes of wood that influence the design and construction of furniture, cabinetry and the artistic applications of wood. Students will learn the practical use of hand tools, power tools and design principles related to woodworking. Upon completion of the course, students will apply their newly acquired skills and knowledge to produce a finished woodworking project.

**Home Improvement/Do It Yourself (DIY)**

Typically held on one Saturday, these are short classes are designed for the homeowner who wants to be more knowledgeable and then be able to test their skills on their own home improvements and projects. Courses include:

- Introduction to Hand and Power Tools
- Build an Adirondack Chair
- Tile Your Home

**Home Inspection Licensing** (http://www.cpcc.edu/construction/crowder-construction-institute/home-inspection)

**The House as a System**

This class covers information students need to complete a basic evaluation of a house and to better understand how it works as a system. This course is valuable for anyone involved in residential real estate, builders and supervisors. It is the prerequisite course for enrolling in the Professional Home Inspection Training. Subjects include construction methods, plumbing, building codes, insulation and more.

**Professional Home Inspector Training**

Learn the information and skills needed to perform home inspections, plus the knowledge necessary for the pre-licensing examination. Topics include licensing law, Standards of Practice and Code of Ethics, N.C. State Building Code for Residential Construction along with electrical, heating, plumbing and air conditioning systems. Also included are actual field inspections of houses with their associated written reports. Professional inspectors will also provide guest lectures.

**Code Qualification** (http://www.cpcc.edu/codeinspector/classes-in-code-inspection)

**Law and Administration**

This course provides an overview of North Carolina’s building regulation system and is designed for the education and training of building, electrical, mechanical, plumbing and fire prevention code enforcement officials. Participants will study the structure of the federal, state and local governments, the history of the N.C. State Building Code, the General Statutes relating to the Code and to code enforcement and the enforcement responsibilities of local inspection departments.

Upon completion, participants will understand the scope of code enforcement and will be able to describe the powers and responsibilities of inspectors. In addition, by successful completion of the Law and Administration course and others specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the state exam.

**Building Level I Standard Inspection**

This course is designed for the Building Level I code enforcement official who has the responsibility of inspecting residential and small commercial construction up to 20,000 square feet. Upon completion, students will better understand the Building Code, the Residential Code and the Accessibility Code of the N.C. State Building Code and will be able to apply the codes in field inspection. In addition, with the successful completion of the Building Level I and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Building Level I state exam.

**Building Level II Standard Inspection**

Building Level II picks up from Level I and is designed for the Building Level II code enforcement official who has the responsibility of inspecting all types of construction up to 60,000 square feet. Upon completion, students will better understand the Building Code and the Accessibility Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Building Level II and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, students will be eligible to take the Building Level II state exam.

**Building Level III Standard Inspection**

This course is designed for the Building Level III code enforcement official who has the responsibility of inspecting all types of construction of unlimited size and is built upon information presented in the Building Level I and Building Level II courses. Upon completion, students will better understand the Building Code and the Accessibility Code of the N.C. State
Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Building Level III and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Building Level III state exam.

**Electrical Level I Standard Inspection**

This course is designed for the Electrical Level I code enforcement official who has the responsibility of inspecting residential and small commercial electrical installations in construction up to 20,000 square feet. Upon completion, students will better understand the Electrical Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level I and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Electrical Level I state exam.

**Electrical Level II Standard Inspection**

This course is designed for the Electrical Level II code enforcement official who has the responsibility of inspecting electrical installations in all types of construction up to 60,000 square feet and is built upon content in the Electrical Level I course. Upon completion, participants will better understand the Electrical Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level II and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, students will be eligible to take the Electrical Level II state exam.

**Electrical Level III Standard Inspection**

This course is designed for the Electrical Level III code enforcement official who has the responsibility of inspecting electrical installations in all types of construction of unlimited size and is built upon content in the Electrical Level I and Electrical Level II courses. Upon completion, participants will better understand the Electrical Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level III and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Electrical Level III state exam.

**Mechanical Level I Standard Inspection**

This course is designed for the Mechanical Level I code enforcement official who has the responsibility of inspecting residential and small commercial mechanical installations in construction up to 20,000 square feet. Upon completion, participants will better understand the Mechanical Code and the Fuel Gas Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level I and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Mechanical Level I state exam.

**Mechanical Level II Standard Inspection**

This course is designed for the Mechanical Level II code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction up to 60,000 square feet and is built upon content in the Mechanical Level I course. Upon completion, participants will better understand the Mechanical Code and the Fuel Gas Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level II and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Mechanical Level II state exam.

**Mechanical Level III Standard Inspection**

This course is designed for the Mechanical Level III code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction of unlimited size and is built upon information presented in the Mechanical Level I and Mechanical Level II courses. Upon completion, participants will better understand the Mechanical Code and the Fuel Gas Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level III and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Mechanical Level III state exam.

**NCCER – Core**

This class meets the requirements for the NCCER Core Curriculum. It can be used with welding, plumbing, carpentry and electrical programs. This class provides apprentices, craft workers and others with a certification of competency in basic construction knowledge. Topics include safety, hand tools, power tools, construction math and blueprint reading. It is a prerequisite for Carpentry I.

**Plumbing Level I Standard Inspection**

This course is designed for the Plumbing Level I code enforcement official who has the responsibility of inspecting residential and small commercial plumbing installations in construction up to 20,000 square feet. Upon completion, participants will better understand the Plumbing Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level I and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Plumbing Level I state exam.

**Plumbing Level II Standard Inspection**

This course is designed for the Plumbing Level II code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction up to 60,000 square feet and is built upon information presented in the Plumbing Level I course. Upon completion, participants will better understand the Plumbing Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level II and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Plumbing Level II state exam.

**Plumbing Level III Standard Inspection**

This course is designed for the Plumbing Level III code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction of unlimited size and is built upon information presented in the Plumbing Level I and Plumbing Level II courses. Upon completion, participants will better understand the Plumbing Code of the N.C. State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level III and the Law and Administration courses in conjunction with other requirements specified by the N.C. Code Officials Qualification Board, participants will be eligible to take the Plumbing Level III state exam.
Annual Code Updates and Credits

CPCC offers annual update training to give code officials, general contractors and anyone working in the building industry the latest information. These approved courses meet the six hours required by N.C. Qualification Board Mandatory Continuing Education Credits for Code Officials.

N.C. Residential Building Code
N.C. Plumbing Code
N.C. Mechanical Code
N.C. Mechanical/Fuel Gas Code

Plumbing (http://www.cpcc.edu/construction/crowder-construction-institute/plumbing)

Plumbing 1-2-3

Put away the yellow pages, and let CPCC teach you how to tackle your own plumbing projects. This class will lead you through the basic plumbing methods, including the tools and materials used to install plumbing pipe work and plumbing fixtures. The focus will be on home plumbing systems.

Backflow Valve Testing

This course will develop entry level skills and knowledge for backflow assembly field tester. A working knowledge of the causes and principles of backflow and backflow prevention will be demonstrated. Recognizing proper backflow prevention assembly application, installation and operation are stressed. Record keeping and backflow program responsibilities are also covered. Student should have knowledge of hydraulic principles and laws, along with plumbing code requirements. Reading, math and mechanical skills are also needed.

Backflow Prevention Assembly and Tester Recertification

Review of the basic skills and knowledge for a backflow assembly field tester. The student must have completed a Charlotte Mecklenburg Utility Department (CMUD) approved course in cross connection control and require recertification of original certificate.

Payroll Professionals

704.330.4223

Payroll Preparation Review Courses for FPC and CPP

In partnership with the American Payroll Association, the College offers non-degree review courses designed for payroll professionals who want to study for the Fundamental Payroll Certification (FPC) or Certified Payroll Professional (CPP) exam.


Performing Arts

The Performing Arts at CPCC has it all: expert guidance, sounds and rhythms, practice, performance and most importantly, fun! These non-degree, continuing education classes are geared for adult beginners and for those looking to improve techniques.

Courses include:

Audio Engineering I, II, III
Broadway Dance - Tap
Central Piedmont Chorale
Dance Performance - Ballet
Harp – Beginning, Folk Harp Ensemble
Piano for Beginners
Vocal Ensemble
VOX Choral Ensemble

CPCC Performing Arts and Dance Theatre (http://www.cpcc.edu/arts/performing-arts)

Personal Finance

https://www.cpcc.edu/cce/personal-enrichment/finance

The Financial Services Institute at CPCC offers you the courses you need to understand your finances and improve your financial future. Whether you are just graduating from high school or planning for retirement, we provide you with the knowledge and skills necessary take charge of your finances. Courses include:

Budgeting Basics for Paying Off Debt (https://www.cpcc.edu/cce/personal-enrichment/finance/budgeting-basics)
Financial Planning for Women (https://www.cpcc.edu/cce/personal-enrichment/finance/financial-planning-for-women)
Investing for Life (https://www.cpcc.edu/cce/personal-enrichment/finance/investing-for-life)
Investing 102: Turning your Retirement Nest Egg into a Monthly Income (https://www.cpcc.edu/cce/personal-enrichment/finance/advanced-investing-for-life)
Retirement Planning Today (https://www.cpcc.edu/cce/personal-enrichment/finance/retirement-planning-today)

Would you like a presentation tailored to your employees or for a private group? The Corporate Learning Center (http://www.cpcc.edu/clc) can arrange that for you. Call 704.330.4660 for questions or a quote.

Process Improvement

704.330.4223
http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/process-improvement

Lean improvement efforts enable organizations to dramatically reduce waste and non-value-added activities to become highly effective, competitive and profitable operations. The basic concept of lean is to “do more with less.” The CPCC certification course builds lean change agent expertise than can be applied in both manufacturing and non-manufacturing enterprises.


Experience first-hand the power of Lean Manufacturing in this fun eight-hour course and factory simulation developed by NCSU Industrial Extension Service. Learn, then apply principles and practices immediately in your organizations to reduce waste and remove non-value added activities. This course is especially relevant to front-line leaders, hourly production employees and work teams.

Process Management

This course helps participants develop a road map that will enable process owners and teams to identify, define, manage and improve their business processes. The class will address current and new processes and will help participants learn how to ensure they meet business performance objectives.

Project Management (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/process-improvement/project-management-1)

Project Management Certificate with a Concentration in Business Analysis

The Project Management and Business Analysis Comprehensive Certificate covers core project management and business analysis skills. It is appropriate for anyone who leads projects; determines project needs; and defines, communicates, recommends and manages the scope of a business solution. Project management and business analysis skills complement one another in effectively defining and managing projects to reach desired results for the end user. This comprehensive program gives participants the high demand skills needed to be more effective project managers or business analysts. Required courses for the comprehensive certificate include the courses in Project Management Plus Certificate Program (http://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/process-improvement/project-management-1) and Data Gathering and Requirements Elicitation, Creating Functional Specifications and Structured Testing Techniques from Business Analysis Plus Certificate Program.


This comprehensive program is for individuals who lead or direct projects and programs, either fully or in part. The extensive training follows the PMBOK® (Project Management Body of Knowledge) standards that include Project Planning and Control, Determining Business Requirements, plus powerful hands-on management applications of Microsoft Project using real-world scenarios. The program also prepares participants to take the PMP® and CAPM® exams (Project Management Professional, Certified Associate in Project Management, designations awarded by PMI®, the Project Management Institute).

The following four courses are required to complete the Project Management Plus Certificate:


The Business Analysis Plus Certificate is a comprehensive program for anyone who determines project needs or who needs to define, communicate, recommend and manage the scope of a business solution. The program provides extensive training on determining business requirements, project planning and control, data gathering, creating functional specifications and structured testing utilizing the IIBA®, International Institute of Business Analysis, BABOK® (Business Analysis Body of Knowledge). Courses include:

Re-Careering Services

704.330.4223
http://www.cpcc.edu/changingcareers

Located on the Harris Campus (http://www.cpcc.edu/campuses/harris), Re-Careering Services supports unemployed and underemployed professionals who are changing careers or may be looking for their next job. Through proven tools and competency-based methods, our staff will help you determine the best career path for you and build the skills you need to succeed in your job search.

Thanks to the new REACH IT initiative (http://www.cpcc.edu/changingcareers/scholarships/reachit), unemployed Charlotte-area workers will have the opportunity to receive a training scholarship in one of two career tracks: health information technology (HIT) or information technology (IT) training.

Additional resources for jobseekers are available through community partners, including those listed in our helpful links (http://www.cpcc.edu/cce/job-and-career-enhancement/changing-careers/helpful-community-links). Most services are free to the community. Call 704.330.4223 for an appointment or visit our website: www.cpcc.edu/changingcareers.

Recreation and Wellness

https://www.cpcc.edu/cce/personal-enrichment/recreation

Start or maintain a more active and healthy lifestyle through fun and popular recreation and wellness courses. With day, evening and weekend sessions, CPCC gets you off the sofa, helps you meet new people and reach your goals.

Sports (https://www.cpcc.edu/cce/personal-enrichment/recreation/sports-home)

Enjoy learning a new sport at CPCC or polish your skills while meeting new people and getting expert instruction. Classes are small and offered at convenient times to give you a great experience - and a great workout! Choose from:

Golf (https://www.cpcc.edu/cce/personal-enrichment/recreation/sports-home/golf)
Tennis (https://www.cpcc.edu/cce/personal-enrichment/recreation/sports-home/tennis)
Kayaking (https://www.cpcc.edu/cce/personal-enrichment/recreation/sports-home/kayaking)

Fitness and Health (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness)

CPCC is guaranteed to get you moving! Select from time honored disciplines, fitness-based activities or choose unique health offerings all designed to improve your life.

Tai Chi (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/Disciplines/tai-chi)
Yoga (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/Disciplines/Yoga)
Pilates (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/Fitness/copy_of_hip-hop-latin-dance)
Hip-Hop/Latin Dance Aerobics (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/Fitness/hip-hop-latin-dance)
Boot Camp Fitness (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/Boot-camp-fitness)
Self-Protection for Women Seminar (https://www.cpcc.edu/cce/personal-enrichment/recreation/self-defense)
Mindful Health Workshop (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness/health-and-wellness/mindful-health-workshop)
Fitness Professional Certification (https://www.cpcc.edu/cce/personal-enrichment/recreation/fitness-professional-certifications)

Dance (https://www.cpcc.edu/cce/personal-enrichment/recreation/dance)

Get moving! Dance classes are a great way to stay in shape while leaning and having fun. We offer choices at several locations throughout the city. Courses include:

Dance Basics (https://www.cpcc.edu/cce/personal-enrichment/recreation/dance/dance-basics)
Belly Dance (https://www.cpcc.edu/cce/personal-enrichment/recreation/dance/belly-dance)
Beginning Shag (https://www.cpcc.edu/cce/personal-enrichment/recreation/dance/beginning-shag)

Additional resources for jobseekers are available through community partners, including those listed in our helpful links (http://www.cpcc.edu/cce/job-and-career-enhancement/changing-careers/helpful-community-links). Most services are free to the community. Call 704.330.4223 for an appointment or visit our website: www.cpcc.edu/changingcareers.
Writing and Cultural Arts (https://www.cpcc.edu/cce/personal-enrichment/leisure)

Film Critique and Analysis (https://www.cpcc.edu/cce/personal-enrichment/leisure/Film-Critique-and-Analysis)
History of Charlotte (https://www.cpcc.edu/cce/personal-enrichment/leisure/History-of-Charlotte)
Social Media 101 (https://www.cpcc.edu/cce/personal-enrichment/leisure/Social-Media-101)
Songwriting (https://www.cpcc.edu/cce/personal-enrichment/leisure/Songwriting-Made-Easy)
Storytelling (https://www.cpcc.edu/cce/personal-enrichment/leisure/The-Craft-of-Storytelling)
The Fine Art of Magic
Writing Courses and Workshops (https://www.cpcc.edu/cce/personal-enrichment/leisure/writing-courses-and-workshops)

Languages (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages) (French, German, Spanish, Italian, Mandarin Chinese)

Six Sigma Certifications

Six Sigma, the powerful methodology that has revolutionized leading corporations worldwide, is available at CPCC as a blended course with classroom instruction and online assignments. The benefits of implementing Six Sigma are lowered costs, improved profitability, increased market share and more.

Six Sigma Black Belt Certification

After successful completion of this 100-hour course, participants will be better prepared to provide an organization with the leadership and knowledge expertise of a certified Six Sigma Black Belt. The course content is built on the American Society for Quality (http://asq.org/about-asq/who-we-are) (ASQ) body of knowledge. Six Sigma Black Belts lead cross-functional project teams to carry out identified improvement projects. As such, Black Belts need to be able to implement all of the appropriate tools of Six Sigma and provide statistical expertise for project teams. They work with, lead and mentor cross-functional teams to define and measure problems, analyze the root causes, implement improvements and establish control at new levels. This course blends classroom instruction (40 hours) with required online assignments (60 hours). Additional non-degree certificates, certifications and licensure or test preparation are available. For a complete schedule or to learn more, call 704.330.4223.

Six Sigma Green Belt Certification

This course blends classroom instruction with online assignments and exams. There are 24 hours of required instructor-led classroom sessions every other week during the session and approximately 22 hours of online activities. Online hours may vary per student based on knowledge and skill. There are no prerequisites to taking this course. Participants who successfully complete the program will receive a CPCC certificate and be awarded 4.6 CEUs.

Workplace Basic Skills
704.330.4554 or 704.330.4660

A skilled and productive workforce begins with employees having fundamental knowledge and skills, including reading to understand and to follow directions, using math for measurement and simple calculations, writing to record data and to communicate. CPCC works with business and industry to offer basic skills classes to serve those employees’ needs. Courses are often held on-site at the workplace and are coordinated with work schedules. The College also offers courses for English as a Second Language (ESL) and General Educational Development (GED) preparation. Learn more about how your company or organization can offer basic skills to employees by calling 704.330.4554. For information on additional customized training for employees or for an assessment of employees’ skill levels, contact Corporate Learning at 704.330.4660. Courses available include the following:

Math
Reading
General Educational Development (GED) test preparation
English as a Second Language (ESL) – beginning, intermediate and advanced
Math for ESL students

Credentials
http://www.cpcc.edu/cce/job-and-career-enhancement/credentials

Choose from our expanded number of industry specific and professional certifications and exam prep to help you enter a career field, to get ahead and to validate your job skills. Short-term and more advanced programs give you ready access to professional development courses that earn continuing education units (CEUs) to keep your credentials up to date.

Certificates, Certifications, Licensure and Exam Prep
704.330.4223
http://www.cpcc.edu/cce/job-and-career-enhancement/credentials

Corporate and Continuing Education helps meet your professional goals in knowledge, skill and ability through established non-degree programs that include college completion, industry-specific competencies and requirements and nationally recognized exam preparation. The following
list represents many of our present offerings, but is subject to change as we respond to relevant learning needs.

Find additional information by visiting here (http://www.cpcc.edu/cce/job-and-career-enhancement/credentials) or from further descriptions provided below.

**Certificates**

- Aging Studies
- AutoCAD Basic User
- Bank Teller
- Business Analysis Plus
- Catering and Event Management
- Digital Marketing
- ESL Instructor Fast Track Training
- Entrepreneurship
- Event Planning
- Film/Video
- Floral Design
- Human Resources
- Master Digital Presenter
- Microsoft Business Skills
- Mortgage Banking
- Motorsports
- N.C. Career Readiness Certificate (CRC)
- Project Management Plus
- Project Management Concentration in Business Analysis
- Project Management Concentration in Sustainability
- Project Management Concentration in Agile
- Resident Care Director
- Web Designer

**Certifications, Licensure and Exam Prep**

- Activity Director Training, Part I and II
- Adobe Certified Associate – Dreamweaver Web Communication
- Adobe Certified Associate – Illustrator Visual Communication
- Adobe Certified Associate – InDesign Visual
- Adobe Certified Associate – Photoshop Visual Communication
- Agile Certified Practitioner Exam Prep (PMI-ACP)
- Appraisal Licensure Prep
- Assisted Living Administrator Licensing Test
- Basic Emergency Medical Technician
- Basic Law Enforcement Training
- Certified Dietary Manager (CDM) Training and Exam Prep
- Certified Financial Planner (CFP®)
- Certified Global Business Professional
- Certified Payroll Professional (CPP) Prep Review
- Certified in Production and Inventory Management (APICS/CPIM)
- Certified Professional in Supply Management (CPSM)
- Certified Quality Engineer
- Certified Quality Technician
- Certified Supply Chain Professional Exam Prep (APICS/CSCP)
- Certified Professional in Supply Management (CPSM)
- CompTIA A +
- CompTIA Network +
- CompTIA Security +
- Electronic Notary Certification
- Forklift Training
- FINRA Series 6 and 63 Licensure Prep
- FINRA Series 7 Review
- Fundamental Payroll Certification (FPC)
- Home Energy Rating System
- Hospital Unit Secretary
- Lean Enterprise Certification
- LEED Green Associate Exam Prep
- LEED AP Homes Exam Prep
- LEED AP Neighborhood Development Exam Prep
- Medical Reimbursement Specialist
- Medical Transcription
- Medication Technician
- Microsoft Office Specialist
- Microsoft Technology Associate – Database Administration
- Microsoft Technology Associate – Networking Fundamentals
- Microsoft Technology Associate – Security Fundamentals
- Mortgage Loan Originator Licensure Prep
- NABCEP Photovoltaic Entry Level Program and Exam
- N.C. Accident, Sickness and Health Agent Licensure Prep
- N.C. Casualty Insurance Agent Licensure Prep
- N.C. Dealer Used Car Initial/Renewal
- N.C. EMT Initial/Renewal Certification
- N.C. Life Insurance Agent Licensure Prep
- N.C. Property Insurance Agent Licensure Prep
- N.C. Real Estate Broker Licensure Prep
- N.C. State Auto Inspection OBD II and Safety Initial/Renewal
- Nuclear Internal/External Auditor
- Nurse Aide 1
- Personal Trainer
- Professional Bookkeeper
- Pharmacy Technician
- Phlebotomy
- PHR/SPHR/GPHR
- PMP/CAPM Exam Prep
- QuickBooks™ Certified User
- Real Estate Broker
- ServSafe® Training and Exam Prep
- Six Sigma Black Belt Certification
- Six Sigma Green Belt Certification

**Changing Careers**

http://www.cpcc.edu/cce/job-and-career-enhancement/changing-careers

CPCC also offers a growing number of services and tools to help you as you progress throughout your career. If you are changing careers, trust CPCC to help guide you toward your goals through learning.

Most continuing education courses and programs do not require prerequisites, enrollment applications or transcripts. For detailed information, links to course descriptions and more, visit our website at http://www.cpcc.edu/cce/job-and-career-enhancement

**Personal Enrichment**

704.330.4223
http://www.cpcc.edu/cce/personal-enrichment

Find balance, pleasure and meaning in your life through continuing education courses designed for recreation, leisure and personal enrichment. Offered year-round and throughout Mecklenburg County, these non-degree courses focus on individual well-being and lifelong learning. Categories and topics are selected based on student interest and vary in length from one-time short seminars to 64 hours or more of in-
depth instruction. Most of these courses are fee based and all are open to the public.

Many personal enrichment courses are also introductory and do not require any specific skill level or prerequisites. Some, however, are designed in progressive sequence from beginner to the more advanced.

Courses and programs vary each semester, but typically include the following courses and subject areas. A complete schedule of non-degree courses is available for each semester (spring, summer and fall). Registration and payment is typically available until the starting date of classes, unless the course is at maximum enrollment or is cancelled. No enrollment application or transcripts are required.

**Automotive and Motorcycle Safety** (https://www.cpcc.edu/cce/personal-enrichment/automotive)

Whether you’re ready to start tinkering or to build an engine, CPCC shares your passions. Our experienced automotive and auto body instructors will give you the hands-on guidance and knowledge you need to succeed.

Prefer two wheels? Register early for one of our popular public motorcycle riding and safety classes taught in small groups and using CPCC bikes. Learn more by clicking the topics below:

- **Automotive and Auto Body** (https://www.cpcc.edu/cce/personal-enrichment/automotive-and-auto-body-courses)
- **Motorcycle Safety** (https://www.cpcc.edu/cce/personal-enrichment/automotive/motorcycle-safety)

**Charlotte Cooks** (http://www.cpcc.edu/cce/personal-enrichment/cooking)™

Expert, friendly instructors guide your learning and practice as you prepare delicious meals, desserts and more in our professional kitchens.

Appetizer classes ranging from American Sushi (http://www.cpcc.edu/hospitality-education/faculty-staff/pamela-roberts) to Tasty First Bites
Cakes courses (https://www.cpcc.edu/cce/personal-enrichment/cooking/baking-and-pastry-arts) (decorating, designer cupcakes, special occasion, classic cakes, and more)
Catering and Event Management
Cooking Skills (https://www.cpcc.edu/cce/personal-enrichment/cooking/cooking-skills-1) such as Knife skills (basic (https://www.cpcc.edu/cce/personal-enrichment/cooking/cooking-skills-1/knife-skills), fruit and vegetable carving, meat fabrication)
Entertaining and Party Planning
Home Canning (http://www.cpcc.edu/cce/personal-enrichment/cooking/seasonal-and-healthy-cooking-1/the-art-of-home-canning) and Food Preservation
Grilling and Seasonal cooking (https://www.cpcc.edu/cce/personal-enrichment/cooking/seasonal-and-healthy-cooking-1) classes
Personal Chef Training
Sausage Making (http://www.cpcc.edu/cce/personal-enrichment/cooking/cooking-skills-1/copy3_of_knife-skills) and Homemade Cheese classes

**World and Regional Cuisines** (https://www.cpcc.edu/cce/personal-enrichment/cooking/world-and-regional-cuisines) (Mexican, Chinese, Indian, Moroccan, Korean and more)

Experience Charlotte Cooks’ teambuilding sessions by request through the Corporate Learning Center (http://www.cpcc.edu/clc) by calling 704.330.4660. These fun and popular sessions can be customized, hands-on and affordable for special interest groups, businesses and special occasions.

**Home and Garden** (http://www.cpcc.edu/cce/personal-enrichment/home)

Transform your home from the inside out with our variety of offerings.

- **Creative Interiors** (https://www.cpcc.edu/cce/personal-enrichment/home/creative-interiors)
- **Sewing and Quilting** (https://www.cpcc.edu/cce/personal-enrichment/home/sewing)
- **Gardening and Home Landscaping** (https://www.cpcc.edu/cce/personal-enrichment/home/gardening)
- **Floral Design** (https://www.cpcc.edu/cce/personal-enrichment/home/floral-design)
- **Birding in North Carolina** (https://www.cpcc.edu/cce/personal-enrichment/home/Birding-in-North-Carolina)
- **The Night Sky** (https://www.cpcc.edu/cce/personal-enrichment/home/The-Night-Sky)
- **DIY - Home Improvement** (https://www.cpcc.edu/cce/personal-enrichment/home/diy-home-improvement-and-projects)

**Language and Culture** (https://www.cpcc.edu/cce/personal-enrichment/language-and-culture-home)

Connect and learn to better communicate with individuals from near and far with non-degree courses in Spanish, Italian, French, German and Mandarin Chinese. The courses, from beginner to intermediate, feature conversational practice and are grammar-based while encouraging participants to use their new language skills in real-world situations.

Choose courses from several locations in Mecklenburg County. Group classes for travel clubs or businesses are also available by contacting the Corporate Learning Center (http://www.cpcc.edu/clc) at 704.330.4660.

- **French** (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/french)
- **German** (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/german)
- **Spanish** (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/spanish-1)
- **Italian** (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/italian-1)
- **Chinese** (https://www.cpcc.edu/cce/job-and-career-enhancement/courses-and-programs/international-learning-and-languages/chinese)

**Painting and Creative Arts** (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/painting-and-creative-home)

Enjoy and express yourself through our variety of painting, drawing and mixed media courses. Courses include:
Creative Cartooning and Drawing (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/creative-cartooning-and-drawing)
Basic Drawing Techniques (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/basic-drawing-techniques)
Basic Watercolor (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/Watercolor-Techniques)
Basic Acrylic Painting Techniques (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/Basic-Acrylic-Painting-Techniques)
Open Studio Painting (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/Open-Studio-Painting)
Acrylic Art – Mixed Media Collage (https://www.cpcc.edu/cce/personal-enrichment/arts/painting-and-creative-arts/Planning-Home-Landscape)

Small Business Center

704.330.6736 or 704.330.4223
http://www.cpcc.edu/sbc

The CPCC Small Business Center expands the College’s role in supporting small business owners and promoting entrepreneurship as a career option. Programs develop and offer innovative continuing education courses and services to assist entrepreneurs start a business, grow a business, or keep pace with the ever-changing small business environment. The Small Business Center is a part of the statewide Small Business Center Network (SBCN) (https://www.ncsbc.net/), a community college-funded initiative with a vision to foster and support entrepreneurship, small business training and economic development in local communities across the state. This state funding provides many of the resources, including counseling, at no cost to the client or student.

Components of the Small Business Center include:

• Introductory seminars, workshops, forums to promote awareness and answer student questions
• Business Resource Center located on Central Campus with books, periodicals, videos and lending library collection, plus client touch-down computer research stations equipped with specialized business software
• Individual counseling to assist small business owners and to offer referrals for those who need additional skills or consulting
• Continuing education courses (non-degree) focused on critical practical skills with classes ranging from startup and financing to marketing, as well as a comprehensive certificate course in entrepreneurship

Courses and topic areas include:
• How to Start a Business
• Business Plan Writing
• Accounting with QuickBooks®
• Funding and Financing
• Nonprofit Essentials
• Business Growth and Development

• Small business networking events to showcase small business owners, their services and products
Pre-College Courses

Adult High School (AHS)

AHS 6006. Adult Basic Ed Secndary Level High. 0.0 Hours.
Class-1500.0. Clinical-0.0. Lab-0.0. Work-0.0
The following Basic Skills Programs are included under BSP2000: ADULT BASIC EDUCATION (ABE): A program of basic educational skills for adults aged 16 or older who are out of school who have not graduated from high school and who function at less than the nineth grade level of competency. GENERAL EDUCATIONAL DEVELOPMENT (GED): A program of instruction designed to prepare adult students to pass the GED test that leads to a High School Diploma Equivalency. ADULT HIGH SCHOOL DIPLOMA (AHS): A program of instruction offered cooperatively with local public school systems to help adult students earn an Adult High School Diploma. COMPENSATORY EDUCATION (CED): A program of instruction providing Basic Education Skills for mentally handicapped Adults. ENGLISH AS A SECOND LANGUAGE (ESL): A program of instruction to help adults who have limited or no proficiency in the English language.

Biology (BIO)

BIO 090. Foundations of Biology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic biological concepts. Topics include basic biochemistry, cell structure and function, interrelationships among organisms, scientific methodology, and other related topics. Upon completion, students should be able to demonstrate preparedness for college-level biology courses.

Chemistry (CHM)

CHM 090. Chemistry Concepts. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

Computer Information Technolog (CTS)

CTS 060. Essential Computer Usage. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the basic functions and operations of the computer. Topics include identification of components, overview of operating systems, and other basic computer operations. Upon completion, students should be able to perform basic computer commands, access files, print documents and complete fundamental application operations.

Developmental Mathematics (DMA)

DMA 010. Operations With Integers. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of integers and integer operations. Topics include integers, absolute value, exponents, square roots, perimeter and area of basic geometric figures, Pythagorean theorem, and use of the correct order of operations. Upon completion, students should be able to demonstrate an understanding of pertinent concepts and principles and apply this knowledge in the evaluation of expressions.
Prerequisites: Complete one of the following options:
• Take ABL 6014
• Take MAT 050

DMA 020. Fractions and Decimals. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

DMA 030. Proportion/Ratios/Rates/Percents. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

DMA 040. Expressions, Linear Equations, Linear Inequalities. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.

DMA 050. Graphs and Equations of Lines. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

DMA 060. Polynomials and Quadratic Applications. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of problems involving graphic and algebraic representations of quadratics. Topics include basic polynomial operations, factoring polynomials, and solving polynomial equations by means of factoring. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic applications.
Pre-College Courses

DMA 070. Rational Expressions and Equations. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of problems involving graphic and algebraic representations of rational equations. Topics include simplifying and performing operations with rational expressions and equations, understanding the domain, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with rational applications.

DMA 080. Radical Expressions and Equations. 1.0 Credit. Class-0.8. Clinical-0.0. Lab-0.5. Work-0.0
This course provides a conceptual study of the manipulation of radicals and the application of radical equations to real-world problems. Topics include simplifying and performing operations with radical expressions and rational exponents, solving equations, and determining the reasonableness of an answer. Upon completion, students should be able to find algebraic solutions to contextual problems with radical applications.

Developmental Reading/English (DRE)

DRE 096. Integrated Reading and Writing I. 3.0 Credits. Class-2.5. Clinical-0.0. Lab-1.0. Work-0.0
This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile (TM) range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs.

DRE 097. Integrated Reading and Writing II. 3.0 Credits. Class-2.5. Clinical-0.0. Lab-1.0. Work-0.0
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught at a reinforcement level using texts primarily in a Lexile (TM) range of 1070 to 1220. Upon completion, students should be able to demonstrate and apply those skills toward understanding a variety of complex academic and career texts and composing effective paragraphs.

DRE 098. Integrated Reading and Writing Ill. 3.0 Credits. Class-2.5. Clinical-0.0. Lab-1.0. Work-0.0
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile? range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay.

DRE 099. Integrated Reading Writing III (co-Req). 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies by complementing, supporting and reinforcing material covered in ENG 111. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; except where noted, these topics are taught using texts primarily in the Lexile? range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay.

Economics (ECO)

ECO 6000. Ventures Multilevel Life & Work. 0.0 Hours. Class-1500.0. Clinical-0.0. Lab-0.0. Work-0.0
The following Basic Skills Programs are included under BSP2000: ADULT BASIC EDUCATION (ABE): A program of basic educational skills for adults aged 16 or older who are out of school, who have not graduated from high school, and who function at less than the ninth grade level of competency. GENERAL EDUCATIONAL DEVELOPMENT (GED): A program of instruction designed to prepare adult students to pass the GED test that leads to a High School Diploma Equivalency. ADULT HIGH SCHOOL DIPLOMA (AHS): A program of instruction offered cooperatively with local public school systems to help adult students earn an Adult High School Diploma. COMPENSATORY EDUCATION (CED): A program of instruction providing Basic Education Skills for mentally handicapped Adults. ENGLISH AS A SECOND LANGUAGE (ESL): A program of instruction to help adults who have limited or no proficiency in the English language. ECO 6000 Ventures Multilevel Life and Work.

Electric Lineman Technology (ELT)

ELT 6000. Refugee Education Multilevel. 0.0 Hours. Class-1500.0. Clinical-0.0. Lab-0.0. Work-0.0
The following Basic Skills Programs are included under BSP2000: ADULT BASIC EDUCATION (ABE): A program of basic educational skills for adults aged 16 or older who are out of school, who have not graduated from high school, and who function at less than the ninth grade level of competency. GENERAL EDUCATIONAL DEVELOPMENT (GED): A program of instruction designed to prepare adult students to pass the GED test that leads to a High School Diploma Equivalency. ADULT HIGH SCHOOL DIPLOMA (AHS): A program of instruction offered cooperatively with local public school systems to help adult students earn an Adult High School Diploma. COMPENSATORY EDUCATION (CED): A program of instruction providing Basic Education Skills for mentally handicapped Adults. ENGLISH AS A SECOND LANGUAGE (ESL): A program of instruction to help adults who have limited or no proficiency in the English language. ELT 6000 Refugee Education Multilevel.

English (ENG)

ENG 060. Speaking English Well. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to improve conversational skills. Emphasis is placed on practice using fluent standard spoken English. Upon completion, students should be able to converse comfortably in a variety of situations. This course does not satisfy the developmental reading and writing =prerequisite for ENG 111.
ENG 080. Writing Foundations. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the writing process and stresses effective sentences. Emphasis is placed on applying the conventions of written English, relating standard usage and mechanics in structuring a variety of sentences. Upon completion, students should be able to write correct sentences and a unified, coherent paragraph. This course does not satisfy the developmental reading and writing prerequisite for ENG 111.
Prerequisites:
• Take 1 course From ENG 070 ENG 075 with a minimum grade of C

ENG 081. Fast Track Writing Found. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an intensive review of selected ENG 080-level writing skills. Topics include the following writing skills: forming correct sentences and composing coherent paragraphs. Upon completion, students should be able to write correct sentences and coherent paragraphs.

ENG 085. Reading & Writing Foundations. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs. This course integrates ENG 080 and RED 080.
Prerequisites: Complete one of the following options:
• Take ENG 070 RED 070 with a minimum grade of C
• Take ENG 075 with a minimum grade of C
Corequisites: ENG 085A

ENG 085A. Reading & Writing Foundations Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This laboratory provides the opportunity to practice the skills introduced in ENG 085. Emphasis is placed on practical skills for applying analytical and critical reading skills to a variety of texts and on the writing process. Upon completion, students should be able to apply those skills in the production of effective paragraphs.
Prerequisites: Complete one of the following options:
• Take ENG 070 RED 070 with a minimum grade of C
• Take ENG 075 with a minimum grade of C
Corequisites: ENG 085

ENG 090. Composition Strategies. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides practice in the writing process and stresses effective paragraphs. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay. This course satisfies the developmental writing prerequisite for ENG 111 and ENG 111A.
Prerequisites: Complete one of the following options:
• Take ENG 080 with a minimum grade of C
• Take ENG 085 ENG 085A with a minimum grade of C
Corequisites: ENG 090A

ENG 090A. Composition Strategies Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This writing lab is designed to practice the skills introduced in ENG 090. Emphasis is placed on learning and applying the conventions of standard written English in developing paragraphs within the essay. Upon completion, students should be able to compose a variety of paragraphs and a unified, coherent essay.
Prerequisites: Complete one of the following options:
• Take ENG 080 with a minimum grade of C
• Take ENG 085 ENG 085A with a minimum grade of C
Corequisites: ENG 090

ENG 091. Fast Track Composition Strategies. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an intensive review of selected ENG 090-level writing skills. Topics include the following writing skills: composing coherent paragraphs and writing effective essays. Upon completion, students should be able to write coherent paragraphs and effective essays.

ENG 095. Reading & Comp Strategies. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing.
Prerequisites: Complete one of the following options:
• Take RED 080 ENG 080 with a minimum grade of C
• Take ENG 085 ENG 085A with a minimum grade of C
Corequisites: ENG 095

ENG 095A. Reading & Comp Strat Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This laboratory provides the opportunity to practice the skills introduced in ENG 095. Emphasis is placed on practical skills for applying critical reading skills to narrative and expository texts and on the writing process. Upon completion, students should be able to apply those skills in the production of effective essays in preparation for college writing.
Prerequisites: Complete one of the following options:
• Take RED 080 ENG 080 with a minimum grade of C
• Take ENG 085 ENG 085A with a minimum grade of C
Corequisites: ENG 095

English As a Foreign Language (EFL)

EFL 050. English for Academic Purp. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in academic and professional language skills for non-native speakers of English. Emphasis is placed on development of integrated language skills for use in studying a particular content area. Upon completion, students will demonstrate improved academic language, content-specific vocabulary and skills, and cultural knowledge in the topic area.
**Pre-College Courses**

**EFL 055. English for Special Purpo. 3.0 Credits.**  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will provide instruction in academic and professional language for non-native speakers of English. Emphasis is placed on development of integrated language use for carrying out a specific academic task. Upon completion, students should be able to demonstrate improved language skills for participation and success within the particular topic area.

**EFL 061. Listening/Speaking I. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to provide the basic oral/aural language skills needed for essential daily conversation on campus and in the community. Emphasis is placed on vocabulary building, communication in various social and academic situations, and various spoken grammatical skills. Upon completion, students should be able to produce and understand English dealing with routine topics using basic syntax and vocabulary skills.

**EFL 062. Listening/Speaking II. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to enhance intermediate listening and speaking skills of non-native speakers of English. Emphasis is placed on the ability to hold extended conversation and on the ability to understand extended spoken discourse. Upon completion, students should be able to demonstrate improved listening skills and strategies in a variety of settings.  
Prerequisites: Take EFL 061 with a minimum grade of C

**EFL 063. Listening/Speaking III. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to enhance intermediate listening and speaking skills of non-native speakers of English. Emphasis is placed on the ability to hold extended conversation and on the ability to understand extended spoken discourse. Upon completion, students should be able to successfully participate in high intermediate-level listening and speaking activities.  
Prerequisites: Take EFL 062 with a minimum grade of C

**EFL 064. Listening-Speaking IV. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to prepare advanced-level non-native speakers of English for academic and professional speaking and listening activities. Emphasis is placed on learning and practicing strategies of effective oral expression and comprehension of spoken discourse in informal and formal settings. Upon completion, students should be able to effectively participate in activities appropriate to academic and professional settings.  
Prerequisites: Take EFL 063 with a minimum grade of C

**EFL 071. Reading I. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to help those literacy skills achieve reading fluency in English at the beginning level. Emphasis is placed on basic academic and cultural vocabulary and reading strategies which include self-Monitoring, and recognizing organizational styles and context clues. Upon completion, students should be able to use these strategies to read and comprehend basic academic, narrative, and expository texts. This course is intended for non-Native speakers of English.

**EFL 072. Reading II. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides preparation in academic and general purpose reading in order to achieve reading fluency at the low-Intermediate level. Emphasis is placed on expanding academic and cultural vocabulary and developing effective reading strategies to improve comprehension and speed. Upon completion, students should be able to read and comprehend narrative and expository texts at the low-Intermediate instructional level. This course is intended for non-Native speakers of English.  
Prerequisites: Take EFL 071 with a minimum grade of C

**EFL 073. Reading III. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to develop fundamental reading and study strategies at the intermediate level needed for curriculum programs. Emphasis is placed on building vocabulary and cultural knowledge, improving comprehension, and developing study strategies on basic-Level college materials and literary works. Upon completion, students should be able to read and comprehend narrative and expository texts at the intermediate instructional level. This course is intended for non-Native speakers of English.  
Prerequisites: Take EFL 072 with a minimum grade of C

**EFL 074. Reading IV. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to enhance the academic reading skills for successful reading ability as required in college-Level courses. Emphasis is placed on strategies for effective reading and the utilization of these strategies to improve comprehension, analytical skills, recall, and overall reading speed. Upon completion, students should be able to comprehend, synthesize, and critique multi-Disciplinary college-Level reading/Textbook materials. This course is intended for non-Native speakers of English.  
Prerequisites: Take EFL 073 with a minimum grade of C

**EFL 081. Grammar I. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides non-native speakers of English with a variety of fundamental grammatical concepts which enrich language skills and comprehension. Emphasis is on key basic grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts.  
Prerequisites: Take EFL 081 with a minimum grade of C

**EFL 082. Grammar II. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides non-Native speakers of English with a variety of basic grammatical concepts which enrich language skills and comprehension. Emphasis is on key low-Intermediate grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate by written and oral means the comprehension and correct usage of specified grammatical concepts.  
Prerequisites: Take EFL 081 with a minimum grade of C

**EFL 083. Grammar III. 5.0 Credits.**  
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to provide high-intermediate non-native speakers of English with a knowledge of grammatical structures that improves academic communication. Emphasis is placed on using high-intermediate grammatical structures in meaningful contexts through exercises integrating the use of newly acquired structures with previously learned structures. Upon completion, students should be able to demonstrate improved proficiency, comprehension, and grammatical accuracy.  
Prerequisites: Take EFL 082 with a minimum grade of C
EFL 084. Grammar IV. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to give non-native speakers of English a full understanding of advanced grammatical structures and techniques. Emphasis is placed on oral and written communicative fluency through the study of advanced grammatical forms. Upon completion, students should be able to incorporate the structures covered in both spoken and written form, demonstrating improved proficiency, comprehension, and grammatical accuracy.
Prerequisites: Take EFL 083 with a minimum grade of C

EFL 091. Composition I. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb tense-Aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization, and transitions. This course is intended for non-native speakers of English.

EFL 092. Composition II. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides preparation in low-Intermediate academic and general-purpose writing. Emphasis is placed on writing as a process, paragraph development, and basic essay organization. Upon completion, students should be able to write and independently edit and understand the major elements of the writing process, sentence, paragraph, and essay. This course is intended for non-native speakers of English.
Prerequisites: Take EFL 091 with a minimum grade of C

EFL 093. Composition III. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers intermediate-Level academic and general-Purpose writing. Emphasis is placed on writing as a process, paragraph development, and basic essay organization. Upon completion, students should be able to write and independently edit and understand the major elements of the writing process, sentence, paragraph, and essay. This course is intended for non-native speakers of English.
Prerequisites: Take EFL 092 with a minimum grade of C

EFL 094. Composition IV. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares low-Advanced non-native speakers of English to determine the purpose of their writing and to write paragraphs and essays to fulfill that purpose. Emphasis is placed on unity, coherence, completeness, audience, and the writing process; and the grammatical forms and punctuation appropriate for each kind of writing. Upon completion, students should be able to write unified, coherent, and complete paragraph and essays which are grammatical and appropriate for the intended audience. This course is intended for non-native speakers of English.
Prerequisites: Take EFL 093 with a minimum grade of C

EFL 095. Composition V. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare advanced non-native speakers of English for college-Level composition courses. Emphasis is placed on the study and process of writing formal essays and research papers and the analysis of literary, expository, and descriptive writings. Upon completion, students should be able to write and analyze professional and peer compositions and apply basic research principles. This course is intended for non-native speakers of English.

---

General Education Development (GED)

GED 6005. Ged Testing. 0.0 Hours. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the official Ged exam.

Human Resources Development (HRD)

Information Systems (CIS)

CIS 070. Fundamentals of Computing. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers fundamental functions and operations of the computer. Topics include identification of components, overview of operating systems, and other basic computer operations. Upon completion, students should be able to operate computers, access files, print documents and perform basic applications operations.

Mathematics (MAT)

MAT 051. Fast Track Basic Math. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to offer a fast-paced review of basic arithmetic skills for students who have previously mastered these skills. Topics include all arithmetic operations on whole numbers, fractions, decimals and percents. Upon completion, students should be able to demonstrate mastery of basic computational skills, as well as their application to relevant mathematical problems.

MAT 061. Fast Track Essential Math. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to offer a fast-paced, intensive review of skills taught in MAT 060. Emphasis is placed on working with signed numbers, problems involving proportions and per cents, as well as simplifying expressions and solving equations in algebra. Upon completion, students should be able to demonstrate mastery of pre-algebra computations and to solve relevant, multi-step problems.

MAT 070. Introductory Algebra. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.
Prerequisites: Take MAT 060 with a minimum grade of C
Corequisites: Take One: RED 080 or ENG 085

MAT 071. Fast Track Introductory Algebra. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to offer a fast-paced, intensive review of skills taught in MAT 070. Emphasis is placed on working with exponents, order of operations, simplifying algebraic expressions, solving linear equations and inequalities, graphing, formulas, polynomials, and factoring. Upon completion, students should be able to demonstrate mastery of introductory algebra concepts and apply these principles in solving problems.
MAT 080. Intermediate Algebra. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology. Prerequisites: Take MAT 060 MAT 070 with a minimum grade of C
Corequisites: Take One: RED 080 or ENG 085

MAT 081. Fast Track Intermediate Algebra. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to offer a fast-paced review of skills taught in Intermediate Algebra, MAT 080. Topics include factoring; graphing; functions; geometry; solving systems of equations and inequalities; and evaluating, simplifying, and solving rational, radical, and polynomial expressions and equations. Upon completion, students should be able to demonstrate mastery of intermediate algebra concepts and apply these principles in solving problems.

MAT 090. Accelerated Algebra. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers algebraic concepts with emphasis on applications. Topics include those covered in MAT 070 and MAT 080. Upon completion, students should be able to apply algebraic concepts in problem solving using appropriate technology.

RED 080. Introduction to College Reading. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces effective reading and inferential thinking skills in preparation for RED 090. Emphasis is placed on vocabulary, comprehension, and reading strategies. Upon completion, students should be able to determine main ideas and supporting details, recognize basic patterns of organization, draw conclusions, and understand vocabulary in context. This course does not satisfy the developmental reading prerequisite for ENG 111.
Prerequisites:
• Take 1 course From RED 070 ENG 075 with a minimum grade of C

RED 081. Fast Track Introduction to College Reading. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an intensive review of selected RED 080-level reading strategies. Topics include the following reading strategies at the RED 080 level: reading study system, major question types, main idea, patterns of organization, vocabulary, and inference. Upon completion, students should be able to apply selected RED 080 reading strategies to various texts.

RED 090. Improved College Reading. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to improve reading and critical thinking skills. Topics include vocabulary enhancement; extracting implied meaning; analyzing author’s purpose, tone, and style; and drawing conclusions and responding to written material. Upon completion, students should be able to comprehend and analyze college-level reading material.
Prerequisites:
• Take 1 course From RED 080 ENG 085 with a minimum grade of C

RED 091. Fast Track Improved College Reading. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an intensive review of selected RED 090-level reading strategies. Topics include the following reading strategies at the RED 090 level: critical thinking, major question types, main idea, patterns of organization, vocabulary, and inference. Upon completion, students should be able to apply selected RED 090 reading strategies to various texts.
College-Level Courses
College-Level Courses

Academic Related (ACA)

ACA 111. College Student Success. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the college’s physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

ACA 118. College Study Skills. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers skills and strategies designed to improve study behaviors. Topics include time management, note taking, test taking, memory techniques, active reading strategies, critical thinking, communication skills, learning styles, and other strategies for effective learning. Upon completion, students should be able to apply appropriate study strategies and techniques to the development of an effective study plan.

ACA 120. Career Assessment. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides the information and strategies necessary to develop clear personal, academic, and professional goals. Topics include personality styles, goal setting, various college curricula, career choices, and campus leadership development. Upon completion, students should be able to clearly state their personal, academic, and professional goals and have a feasible plan of action to achieve those goals. This course is also available through the Virtual Learning Community.

ACA 121. Managing a Team. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course focuses on the process of the individual with an awareness of the reality in the collective teamwork approach for the workplace emphasizing process-orientation. Topics include how teams work, team effectiveness, team-building techniques, positive thinking, and leadership principles. Upon completion, students should be able to demonstrate an understanding of how teamwork strengthens ownership, involvement, and responsibility in the workplace.

ACA 122. College Transfer Success. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions.

ACA 220. Professional Transition. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides preparation for meeting the demands of employment or education beyond the community college experience. Emphasis is placed on strategic planning, gathering information on workplaces or colleges, and developing human interaction skills for professional, academic, and/or community life. Upon completion, students should be able to successfully make the transition to appropriate workplaces or senior institutions.

Accounting (ACC)

ACC 110. Ten-Key Skills. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enable mastery of the "touch system" on the ten-key device. Emphasis is placed on the "touch system" on the ten-key device. Upon completion, students should be able to use the "touch system" on a ten-key device in making computations necessary in accounting.

ACC 115. College Accounting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic accounting principles for a sole proprietorship. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization. This course is intended for those who have not received credit for ACC 120.

Prerequisites: Take both of the following groups:
- Take 1 course From DMA 050 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 MAT 285 with a minimum grade of C
- Take 1 course From RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

ACC 120. Principles of Financial Accounting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

Prerequisites:
- Take DMA 050 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 or MAT 285 with a minimum grade of C
- Take RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C
ACC 121. Principles of Managerial Accounting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. Prerequisites: Take ACC 120 with a minimum grade of C

ACC 129. Individual Income Taxes. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research, and methodologies, and the use of technology for the preparation of individual income tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms. Prerequisites:
• Take ACC 120 with a minimum grade of C

ACC 130. Business Income Taxes. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms. Prerequisites:
• Take ACC 120 with a minimum grade of C

ACC 140. Payroll Accounting. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

ACC 149. Intro to Acc Spreadsheets. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting. Prerequisites:
• Take CIS 110

ACC 150. Accounting Software Applications. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 151. Accounting Spreadsheet Applications. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. Prerequisites: Take ACC 149 with a minimum grade of C

ACC 170. Technical Accounting. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. Prerequisites: Take ACC 149 with a minimum grade of C

ACC 120. Accounting Spreadsheet Applications. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered. Prerequisites: Take ACC 149 with a minimum grade of C

ACC 121. Principles of Managerial Accounting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. Prerequisites: Take ACC 120 with a minimum grade of C

ACC 129. Individual Income Taxes. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research, and methodologies, and the use of technology for the preparation of individual income tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms. Prerequisites:
• Take ACC 120 with a minimum grade of C

ACC 130. Business Income Taxes. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms. Prerequisites:
• Take ACC 120 with a minimum grade of C

ACC 140. Payroll Accounting. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

ACC 149. Intro to Acc Spreadsheets. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting. Prerequisites:
• Take CIS 110

ACC 150. Accounting Software Applications. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.
ACC 250. Advanced Accounting. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to analyze the special accounting issues, which may include business combinations, partnerships, international accounting, estates, and trusts. Emphasis is placed on analyzing transactions and preparing working papers and financial statements. Upon completion, students should be able to solve a wide variety of problems by advanced application of accounting principles and procedures.
Prerequisites:
• Take ACC 220 with a minimum grade of C

ACC 269. Auditing & Assurance Services. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.
Prerequisites: Take ACC 220 with a minimum grade of C

ACC 270. International Accounting. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes identifying, recording, and interpreting financial information for accounting systems used in different countries. Topics include currency exchange rates, methods of setting and selecting transfer prices, practices used to account for rates of inflation, and major types of taxes. Upon completion, students should be able to describe accounting systems and their impacts on different currencies and demonstrate a basic knowledge of international accounting. This course is a unique requirement of the International Business concentration in the Business Administration program.

Agriculture (AGR)

AGR 120. Pesticide Use & Handling. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a basic understanding of pesticides. Topics include safety, regulations, and the use of pesticides. Upon completion, students should be able to demonstrate the safe use and handling of pesticides.

Air Cond, Heating, and Refrig (AHR)

AHR 110. Introduction to Refrigeration. 5.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

AHR 111. HVACR Electricity. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

AHR 112. Heating Technology. 0.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR 113. Comfort Cooling. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychrometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR 114. Heat Pump Technology. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 115. Refrigeration Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 125. HVACR Electronics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the common electronic control components in HVAC systems. Emphasis is placed on identifying electronic components and their functions in HVAC systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

AHR 130. HVAC Controls. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133. HVAC Servicing. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR 140. All-Weather Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC’s and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.
AHR 160. Refrigerant Certification. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 180. HVACR Customer Relations. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

AHR 210. Residential Building Code. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the residential building codes that are applicable to the design and installation of HVAC systems. Topics include current residential codes as applied to HVAC design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of residential building codes that apply to specific areas of the HVAC trade.

AHR 211. Residential System Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychrometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

AHR 212. Advanced Comfort Systems. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers water-cooled comfort systems, water-source/geo thermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.

AHR 213. HVACR Building Code. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the North Carolina codes that are applicable to the design and installation of HVACR systems. Topics include North Carolina codes as applied to HVACR design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of North Carolina codes that apply to specific areas of the HVAC trade.

AHR 215. Commercial HVAC Controls. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

AHR 220. Commercial Building Codes. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the appropriate sections of the North Carolina State Building Code that govern the installation of commercial comfort, refrigeration, and mechanical systems. Emphasis is placed on using and understanding applications sections of the North Carolina State Building Code. Upon completion, students should be able to use the North Carolina State Building Code to locate information regarding the installation of commercial systems.

AHR 225. Commercial System Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the principles of designing heating and cooling systems for commercial buildings. Emphasis is placed on commercial heat loss/gain calculations, applied psychrometrics, air-flow calculations, air distribution system design, and equipment selection. Upon completion, students should be able to calculate heat loss/gain, design and size air and water distribution systems, and select equipment.

AHR 235. Refrigeration Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

AHR 240. Hydronic Heating. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the accepted procedures for proper design, installation, and balance of hydronic heating systems for residential or commercial buildings. Topics include heating equipment; pump, terminal unit, and accessory selection; piping system selection and design; and pipe sizing and troubleshooting. Upon completion, students should be able to assist with the proper design, installation, and balance of typical hydronic systems.

AHR 245. Chiller Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamentals of liquid chilling equipment. Topics include characteristics of water, principles of water chilling, the chiller, the refrigerant, water and piping circuits, freeze prevention, purging, and equipment flexibility. Upon completion, students should be able to describe the components, controls, and overall operation of liquid chilling equipment and perform basic maintenance tasks.

AHR 293. Selected Topics in HVACR. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0

Alternative Energy Technology (ALT)

ALT 110. Biofuels I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide an introduction to the fundamentals of biobased fuels. Emphasis is placed on proper handling and use guidelines, basic chemistry of biofuels, production methods, and the social, environmental, and economic impacts of biofuels. Upon completion, students should be able to demonstrate a general understanding of biofuels.
ALT 120. Renewable Energy Technologies. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an introduction to multiple technologies that allow for the production and conservation of energy from renewable sources. Topics include hydro-electric, wind power, passive and active solar energy, tidal energy, appropriate building techniques, and energy conservation methods. Upon completion, students should be able to demonstrate an understanding of renewable energy production and its impact on humans and their environment.

ALT 220. Photovoltaic System Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

ALT 221. Advanced Photovoltaic System Designs. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces specific elements in photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems.

ALT 240. Wind and Hydro Power Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts, designs, tools, techniques, and material requirements for systems that convert wind and water into usable energy. Topics include the analysis, measurement, and estimation of potential energy of wind and water systems. Upon completion, students should be able to demonstrate an understanding of the technologies associated with converting wind and water into a viable energy source.

ALT 250. Thermal Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations.

American Sign Language (ASL)

ASL 111. Elementary ASL I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamental elements of American Sign Language within a cultural context. Emphasis is placed on the development of basic expressive and receptive skills. Upon completion, students will be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ASL 112. Elementary ASL II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of ASL 111 focusing on the fundamental elements of American Sign Language in a cultural context. Emphasis is placed on the progressive development of expressive and receptive skills. Upon completion, the students should be able to comprehend and respond with increasing accuracy to expressive American Sign Language and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

Prerequisites: Take ASL 111 with a minimum grade of C
Corequisites: ASL 182

ASL 120. ASL for the Workplace. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers applied American Sign Language (ASL) for the workplace to facilitate basic communication with people whose native language is ASL. Emphasis is placed on expressive and receptive communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and to demonstrate cultural sensitivity.

ASL 151. Numbers and Fingerspelling. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an in-depth study of number systems and fingerspelling techniques in ASL. Emphasis is placed on generating and receiving numbers and fingerspelling in context. Upon completion, students should be able to accurately express and receive numbers and fingerspelling.

Prerequisites: Take ASL 111 with a minimum grade of C
Corequisites: ASL 212

ASL 181. ASL Lab 1. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ASL 182. ASL Lab 2. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of American Sign Language. Emphasis is placed on the progressive development of basic expressive and receptive skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to expressive American Sign Language and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

Prerequisites: Take ASL 181 with a minimum grade of C
Corequisites: ASL 112
**ASL 211. Intermediate ASL I. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a review and expansion of the essential skills of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills, study of authentic and representative literacy and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively using American Sign Language about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Take ASL 112 with a minimum grade of C
Corequisites: ASL 281

**ASL 212. Intermediate ASL II. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a continuation of ASL 211. Emphasis is placed on the continuing development of expressive and receptive skills, with study of authentic and representative literacy and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Take ASL 211 with a minimum grade of C
Corequisites: ASL 282

**ASL 221. Advanced American Sign Language I. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an expansion of the essential and advanced skills of ASL, including advanced vocabulary, lexicalized fingerspelling, and complex grammatical structures. Emphasis is placed on the advanced development of expressive, receptive and conversational skills, study of authentic and representative literacy and cultural texts. Upon completion, students will communicate more accurately with advanced complexity, and to present the topics in the various registers, pragmatics and genres of ASL.
Prerequisites: Take ASL 212 with a minimum grade of C

**ASL 222. Advanced American Sign Language II. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides more expansion of the essential and advanced skills of ASL, including advanced vocabulary, lexicalized fingerspelling, story telling, and complex grammatical structures. Emphasis is placed on the more advanced development of expressive, receptive and conversational skills in a variety of discourse genres. Upon completion, students should be able to debate and lecture with advanced complexity, create story telling, and to present the complementary issues of Deaf community.
Prerequisites: Take ASL 221 with a minimum grade of C

**ASL 225. Global Deaf Community. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of issues related to D/deaf people focusing on Deaf history, causes of deafness, communication, and attitudes toward D/deaf people globally. Emphasis is placed on deaf history, causes of deafness, communication, and attitude toward D/deaf people. Upon completion, students should be able to discuss significant issues related to deafness.
Prerequisites: Take ASL 212 with a minimum grade of C

**ASL 250. Linguistics of American Sign Language. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to increase knowledge and skills necessary to linguistically analyze ASL. Emphasis is placed on applying phonology, morphology, syntax, semantics, discourse and socio-linguistics of ASL. Upon completion, students should be able to demonstrate knowledge and understanding of the basic linguistics of ASL through a variety of assessment methods.
Prerequisites: Take ASL 112 ASL 212 with a minimum grade of C

**ASL 252. American Sign Language Classifiers. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the use of principles of ASL classifiers and to expand the use of ASL classifiers. Emphasis is placed on using different categories of classifiers including bodypart, descriptive, element, instrument and semantic classifiers. Upon completion, students should be able to use ASL non-manual signals effectively, accurately and creatively incorporating ASL classifiers.
Prerequisites: Take ASL 212 min grade C
Take ASL 212 with a minimum grade of C

**ASL 253. American Sign Language Non-Manual Signals. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance and expand the essential skills of ASL’s non-manual signals. Emphasis is placed on using different parts of non-manual signals including listener’s feedback, ASL mouth morphemes, eye and forehead expressions, and head and shoulder shifts. Upon completion, students should be able to use ASL non-manual signals effectively, accurately and creatively.
Prerequisites: Take ASL 212 min grade C
Take ASL 212 with a minimum grade of C

**ASL 260. American Sign Language Semantics. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to expand students’ knowledge and ability to use ASL semantics in their expressive, receptive and conversational skills. Emphasis is placed on analyzing, discussing and selecting appropriate ASL utterances to convey appropriate semantic intent in discourse with consideration given to differing registers. Upon completion, students should be able to expand their knowledge of ASL semantic networking, which will fluency of their ASL discourse.

**ASL 281. American Sign Language Lab 3. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of American Sign Language. Emphasis is placed on the progressive development of expressive and receptive skills through the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Take ASL 182 with a minimum grade of C
Corequisites: ASL 211
**Anthropology (ANT)**

**ANT 210. General Anthropology. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

Prerequisites: Complete one of the following options:
- Take DRE 098
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

**ANT 221. Comparative Cultures. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course provides an ethnographic survey of societies around the world covering their distinctive cultural characteristics and how these relate to cultural change. Emphasis is placed on the similarities and differences in social institutions such as family, economics, politics, education, and religion. Upon completion, students should be able to demonstrate knowledge of a variety of cultural adaptive strategies. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

Prerequisites: Complete one of the following options:
- Take DRE 098
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

**Architecture (ARC)**

**ARC 111. Introduction to Architectural Technology. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

**ARC 112. Construction Materials & Methods. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0

This course introduces construction materials and methodologies. Topics include construction terminology, traditional and alternative materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

**ARC 113. Residential Architectural Technology. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

**ARC 114. Architectural CAD. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

Prerequisites:
- Take ARC 111
ARC 114A. Architectural CAD Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory setting to enhance architectural cad skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings. This is a microstation and/or autocad lab.

ARC 120. Interior Design-Residential. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers principles of light construction and materials. Topics include terminology, components, and light construction codes. Upon completion, students should be able to understand light construction principles.

ARC 132. Specifications & Contracts. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

Prerequisites:
• Take ARC 133

ARC 133. Construction Document Analysis. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the analysis of building construction drawings. Emphasis is placed on material identification, understanding construction details, and the relationships of building structural, mechanical, plumbing, and electrical systems. Upon completion, students should be able to analyze a set of construction drawings by identifying building construction materials and understanding construction details and engineering systems.

ARC 141. Elementary Structures for Architecture. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

ARC 160. Residential Design. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the methodology of basic residential design. Topics include residential site design, space organization and layout, residential styles, and the development of schematic design. Upon completion, students should be able to design a residence.

Prerequisites:
• Take ARC 112

Corequisites: ARC 112

ARC 192M. Selected Topics in Arch Cad. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ARC 197. Select Seminar in Arch Tech. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ARC 210. Intro to Sustain Design. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces concepts and principles related to sustainable site development and architectural design. Topics include low impact and sustainable site development, water efficiency, energy efficiency, material and resource management, indoor environmental quality, and return on investment. Upon completion, students should be able to articulate and integrate sustainable design principles into site and architectural design.

ARC 212. Commercial Constr Tech. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

Prerequisites: Take ARC 111

Take ARC 113 ARC 114 ARC 133 ARC 112
Corequisites: ARC 112

ARC 213. Design Project. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

Prerequisites:
• Take ARC 131 ARC 212 ARC 230 CIV 220

ARC 220. Advanced Architectural CAD. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 221. Architectural 3-D CAD. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

ARC 225. Architectural Building Information Modeling I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is an introduction to the fundamentals of Building Information Modeling (BIM) as a construction documentation system. Topics include basic parametric modeling, creating new types and families of components, and using 3D models to create design drawings. Upon competition, students should be able to use BIM software to create, edit, and print rudimentary architectural 3D computer models.

Prerequisites: Take ARC 114
ARC 230. Environmental Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC 231. Architectural Presentations. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

ARC 235. Architectural Portfolio. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects.
Prerequisites:
• Take ARC 111 ARC 114

ARC 250. Survey of Architecture. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC 262. Architectural Animation & Video. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers three-dimensional architectural animation. Topics include storyboarding, rendered animation creation, audio and video input/output, and techniques for camera and object movement in and around buildings. Upon completion, students should be able to produce rendered architectural animations with sound and archive data to selected media.

ARC 264. Digital Architecture. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.
Prerequisites: Take ARC 111 with a minimum grade of C

Art (ART)

ART 111. Art Appreciation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 114. Art History Survey I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 115. Art History Survey II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ART 116. Survey of American Art. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/Fine arts.

ART 117. Non-Western Art History. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine art.

ART 121. Two-Dimensional Design. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART 122. Three-Dimensional Design. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts.

ART 131. Drawing I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
ART 132. Drawing II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

ART 135. Figure Drawing I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 171. Computer Art I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the use of the computer as a tool for solving visual problems. Emphasis is placed on fundamentals of computer literacy and design through bit-mapped image manipulation. Upon completion, students should be able to demonstrate an understanding of paint programs, printers, and scanners to capture, manipulate, and output images. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 191. Selected Topics in Art. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 193. Selected Topics in Art. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 212. Gallery Assistantship I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the practical application of display techniques. Emphasis is placed on preparation of artwork for installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate basic gallery exhibition skills. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 213. Gallery Assistantship II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides additional experience in display techniques. Emphasis is placed on preparation of artwork for installation, alternative methods of installation, hardware systems, and exhibition graphics. Upon completion, students should be able to demonstrate independent decision-making and exhibition expertise. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 231. Printmaking I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 232. Printmaking II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 235. Figure Drawing II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course extends the study and rendering of the draped and undraped human figure. Emphasis is placed on the exploration of materials and approaches to drawing. Upon completion, students should be able to demonstrate creativity in the representation of the figure. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement. Prerequisites: Take ART 135 with a minimum grade of C-.

ART 240. Painting I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 241. Painting II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 242. Landscape Painting. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces and practices the skills and techniques of open-air painting. Emphasis is placed on techniques of painting summer foliage, skies, and mountains, and the elements of aerial perspective. Upon completion, students should be able to complete an open-air landscape painting employing brush, knife, scumbling, and glazing techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

289
ART 243. Portrait Painting. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers the portrait as subject matter by use of live models. Topics include composition, color mixing, and the history of portraiture. Upon completion, students should be able to demonstrate competence in the traditional approach to portrait painting. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 244. Watercolor. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 247. Jewelry I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces a basic understanding of the design and production of jewelry. Emphasis is placed on concepts and techniques using metals and other materials. Upon completion, students should be able to demonstrate an ability to use appropriate methods to create unique jewelry. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 248. Jewelry II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course is a continuation of the skills learned in ART 247. Emphasis is placed on the creation of individual designs that utilize a variety of techniques such as casting, cloisonne, and plique-a-jour. Upon completion, students should be able to create jewelry which demonstrates originality. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 260. Photography Appreciation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the origins and historical development of photography. Emphasis is placed on the study of composition and history of photography as an art form. Upon completion, students should be able to recognize and produce, using color transparencies, properly exposed, well-composed photographs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 261. Photography I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

Prerequisites:
• Take 1 course From ART 260 ART 1384 with a minimum grade of C

ART 262. Photography II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the creative manipulation of alternative photographic materials and processes such as toning, hand coloring, infrared, and multiple exposure. Emphasis is placed on personal vision and modes of seeing. Upon completion, students should be able to create properly exposed images using a variety of photographic materials and processes. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 263. Color Photography. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an introduction to the procedures and processes involved in color photography. Emphasis is placed on the study of light, filtration, exposure, and films along with the processing and printing of color negative materials. Upon completion, students should be able to demonstrate an understanding of color principles, theories, and processes by using them creatively in the production of color prints.

ART 264. Digital Photography I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces digital photographic equipment, theory and processes. Emphasis is placed on camera operation, composition, computer photo manipulation and creative expression. Upon completion, students should be able to successfully expose, digitally manipulate, and print a well-conceived composition. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

Prerequisites: Take ART 260

ART 265. Digital Photography II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides exploration of the concepts and processes of photo manipulation through complex composite images, special effects, color balancing and image/text integration. Emphasis is placed on creating a personal vision and style. Upon completion, students should be able to produce well-executed images using a variety of photographic and photo manipulative approaches. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 266. Videography I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces various aspects of basic video production including concept development, scripting, camera operation, and post-production. Emphasis is placed on creative expression, camera handling, storyboarding, and editing. Upon completion, students should be able to demonstrate a basic understanding of video camera operation and production techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 267. Videography II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course is designed to provide a framework for the production of a long-term video project. Emphasis is placed on realization of the unique creative vision. Upon completion, students should be able to produce a thematically coherent, edited video with sound and titling. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
ART 271. Computer Art II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course includes advanced computer imaging techniques. Emphasis is placed on creative applications of digital technology. Upon completion, students should be able to demonstrate command of computer systems and applications to express their personal vision. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 281. Sculpture I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 282. Sculpture II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 283. Ceramics I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an introduction to three-dimensional design principles using the medium of clay. Emphasis is placed on fundamentals of forming, surface design, glaze application, and firing. Upon completion, students should be able to demonstrate skills in slab and coil construction, simple wheel forms, glaze technique, and creative expression. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 284. Ceramics II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers advanced hand building and wheel techniques. Emphasis is placed on creative expression, surface design, sculptural quality, and glaze effect. Upon completion, students should be able to demonstrate a high level of technical competence in forming and glazing with a development of three-dimensional awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 285. Ceramics III. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the opportunity for advanced self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of clay bodies, slips, engobes, and firing procedures necessary to fulfill the student’s artistic goals. Upon completion, students should be able to demonstrate a knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 286. Ceramics IV. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the opportunity for self-determined work in sculptural and functional ceramics. Emphasis is placed on developing the technical awareness of glaze materials, glaze formulation, and firing techniques necessary to fulfill the student’s artistic goals. Upon completion, students should be able to demonstrate knowledge of materials and techniques necessary to successfully create original projects in the clay medium. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 288. Studio. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the opportunity for advanced self-determined work beyond the limits of regular studio course sequences. Emphasis is placed on creative self-expression and in-depth exploration of techniques and materials. Upon completion, students should be able to create original projects specific to media, materials, and techniques. Through contractual agreement with the instructor, students will continue to explore personal expressions in their chosen media.

ART 289. Museum Study. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces research methods in the museum setting. Emphasis is placed on the chronology, styles, periods, context, and meaning in art. Upon completion, students should be able to demonstrate the advantage of first-hand and on-site research. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ART 291. Selected Topics in Art. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 292. Selected Topics in Art. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to explore areas of current interest specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 293. Selected Topics in Art. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ART 297. Seminar in Art. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

ART 298. Seminar in Art. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.
Astronomy (AST)

AST 111. Descriptive Astronomy. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces an overview of modern astronomy. Topics include an overview of the solar system, the sun, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them. You must register for both AST 111 and AST 111A unless you have received prior credit for one of these classes. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in Natural Sciences/Mathematics.

AST 111A. Descriptive Astronomy Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

AST 151. General Astronomy I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

AST 151A. General Astronomy I Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
The course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

AST 152. General Astronomy II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of AST 151 with primary emphasis beyond the solar system. Topics include the sun, stars, galaxies, and the larger universe, including cosmology. Upon completion, students should be able to demonstrate a working knowledge of astronomy. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

AST 152A. General Astronomy II Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
The course is a laboratory to accompany AST 152. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 152 and which provide practical experience. Upon completion, students should be able to demonstrate a working knowledge of astronomy. This course is approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

AST 251. Observational Astronomy. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the operation of the telescope and related observatory equipment. Emphasis is placed on the use of the telescope and related observatory equipment, including techniques of data collection, measurements, and data analysis. Upon completion, students should be able to set up a telescope and use the coordinate system to locate objects, collect data, and make measurements with the telescope.

Automation & Robotics (ATR)

ATR 112. Introduction to Automation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

ATR 211. Robot Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides the operational characteristics of industrial robots and programming in their respective languages. Topics include robot programming utilizing teach pendants, PLCs, and personal computers; and the interaction of external sensors, machine vision, network systems, and other related devices. Upon completion, students should be able to program and demonstrate the operation of various robots.
Prerequisites: Take ATR 112 or ELN 260

ATR 280. Robotic Fundamentals. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers application, programming, and maintenance fundamentals for robotic devices. Emphasis is placed on terminology, problem solving, robotic systems controls, and hands-on projects. Upon completion, students should be able to apply basic concepts in application, programming, and robotic control systems.

Automotive (AUT)

AUT 110. Intro to Automotive Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers workplace safety, hazardous material and environmental regulations, use of hand tools, service information resources, basic concepts, systems, and terms of automotive technology. Topics include familiarization with vehicle systems along with identification and proper use of various automotive hand and power tools. Upon completion, students should be able to describe safety and environmental procedures, terms associated with automobiles, identify and use basic tools and shop equipment.

AUT 113. Automotive Servicing I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.
Prerequisites: Take AUT 141 AUT 151 AUT 161 AUT 171 with a minimum grade of C
AUT 141A. Safety and Emissions Lab. 1.0 Credit.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include brake, steering and suspension, lighting, horn, windshield wiper, tire, mirrors, and emission control devices inspection. Upon completion, students should be able to perform complete and thorough North Carolina State Safety and Emissions inspections.

AUT 114A. Safety and Emissions Lab. 1.0 Credit.

This course is an optional lab that allows students to enhance their understanding of North Carolina State Emissions Inspection failures. Topics include evaporative, positive crankcase ventilation, exhaust gas recirculation and exhaust emissions systems operation, including catalytic converter failure diagnosis. Upon completion, students should be able to employ diagnostic strategies to repair vehicle emissions failures resulting from North Carolina State Emissions inspection.

AUT 116. Engine Repair. 3.0 Credits.

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 116A. Engine Repair Lab. 1.0 Credit.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 141. Suspension & Steering Systems. 3.0 Credits.

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

AUT 141A. Suspension & Steering Lab. 1.0 Credit.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

AUT 151. Brake Systems. 3.0 Credits.

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 151A. Brakes Systems Lab. 1.0 Credit.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 161. Basic Auto Electricity. 5.0 Credits.

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of batteries, starters, and alternators. Topics include Ohm’s Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns. Prerequisites: Take DMA 010 DMA 020 DMA 030

AUT 163. Advanced Automotive Electricity. 3.0 Credits.

This course covers electronic theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

AUT 163A. Advanced Automotive Electricity Lab. 1.0 Credit.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, troubleshooting and emerging electrical/electronic systems technologies. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

AUT 171. Automotive Climate Control. 4.0 Credits.

This course covers the theory of refrigeration and heating, electrical/ electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information. Prerequisites: Take AUT 161 with a minimum grade of C
AUT 181. Engine Performance 1. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

AUT 183. Engine Performance 2. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns, and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.
Prerequisites: Take AUT 181 with a minimum grade of C

AUT 186. PC Skills for Auto Techs. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to personal computer literacy and Internet literacy with an emphasis on the automotive service industry. Topics include service information systems, management systems, computer-based systems, and PC based diagnostic equipment. Upon completion, students should be able to access information pertaining to automotive technology and perform word processing.

AUT 211. Automotive Machining. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers engine machining processes for remanufacturing automotive engines. Emphasis is placed on cylinder head service, machining block surfaces, reconditioning connecting rod assemblies, camshafts, flywheels, and precision measurement. Upon completion, students should be able to explain the operation and proper use of automotive machining equipment.

AUT 213. Automotive Servicing 2. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.
Prerequisites: Take AUT 141 AUT 151 AUT 161 AUT 171 AUT 181 AUT 163 with a minimum grade of C

AUT 221A. Automatic Transmissions/Transaxles Lab. 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to diagnose and repair automatic drive trains.

AUT 231. Manual Transmissions/Transaxles/Drive Trains. 3.0 Credits.
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair manual drive trains.

AUT 231A. Manual Transmissions/Transaxles/Drive Trains Lab. 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is an optional lab for the program that needs to meet NATEF hour standards but does not have a co-op component in the program. Topics include manual drive train diagnosis, service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to diagnose and repair manual drive trains.

AUT 281. Advanced Engine Performance. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course utilizes service information and specialized test equipment to diagnose and repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform diagnosis and repair.
Prerequisites: Take AUT 181 AUT 161 with a minimum grade of C

AUT 283. Advanced Automotive Electronics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced electronic systems on automobiles. Topics include microcontrollers, on-board communications, telematics, hybrid systems, navigation, collision avoidance, and electronic accessories. Upon completion, students should be able to diagnose electronic systems using appropriate service information, procedures, and equipment and remove/replace/ reprogram controllers, sensors, and actuators.
Prerequisites: Take AUT 161 AUT 163 with a minimum grade of C

Automotive Body Repair (AUB)

AUB 111. Painting & Refinishing I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.
AUB 112. Painting & Refinishing II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinishing problems.

AUB 114. Special Finishes. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

AUB 121. Non-Structural Damage I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replaceing of body panels to accepted standards.

AUB 122. Non-Structural Damage II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

AUB 131. Structural Damage I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, structural analysis and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB 132. Structural Damage II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB 134. Autobody MIG Welding. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the terms and procedures for welding the various metals found in today’s autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 136. Plastics & Adhesives. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

AUB 141. Mechanical & Electrical Components I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the basic principles of automotive mechanical and electrical components. Topics include personal and environmental safety and suspension and steering, electrical, brake, heating and air-conditioning, cooling, drive train, and restraint systems. Upon completion, students should be able to identify system components and perform basic system diagnostic checks and/or repairs according to industry standards.

AUB 162. Autobody Estimating. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

Baking and Pastry Arts (BPA)

BPA 130. European Cakes and Tortes. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the production of a wide variety of classical and modern cakes suitable for restaurants, retail shops and large-scale production. Emphasis is placed on classic cakes using the methods of mixing, filling, glazing and icing. Upon completion, students should be able to prepare, assemble, and decorate gelatin-based and layered tortes and cakes such as Bavarian, Dobos, and Sacher.

BPA 150. Artisan & Specialty Bread. 4.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, hearth breads, focaccia, flat breads, and other breads utilizing a variety of grains. Upon completion, students should be able to prepare artisan and specialty breads that meet or exceed the expectations of restaurant and retail publics. Prerequisites: Take CUL 110 CUL 160
Take CUL 110 CUL 160 CUL 160A with a minimum grade of C

BPA 165. Hot and Cold Desserts. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the principles and techniques of frozen desserts, soufflés, cobblers, crisps, and strudel dough products. Topics include bombs, parfaits, baked Alaska, ice cream, sorbets, sherbets and granites; hand-stretched strudel products, crepes, and hot/cold soufflés. Upon completion, student should be able to prepare and plate hot and cold desserts with suitable sauces and garnishes.

BPA 210. Cake Design and Decorating. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers advanced concepts in the design and decoration of wedding cakes and other specialty cakes. Topics include baking, filling, and assembling cakes; cake design; finishing techniques utilizing gum paste, fondant, and royal icing; and advanced piping skills. Upon completion, students should be able to design, create, finish and evaluate the quality of wedding and specialty cakes.
BPA 220. Confection Artistry. 4.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the principles and techniques of decorative sugar work and confectionary candy. Topics include nougat, marzipan modeling, pastillage and cocoa painting, confection candy and a variety of sugar techniques including blown, spun, poured and pulled. Upon completion, students should be able to prepare edible centerpieces and confections to enhance dessert buffets and plate presentations.

BPA 230. Chocolate Artistry. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides a study in the art and craft of chocolate. Topics include chocolate tempering, piping, and molding; decorative work associated with cakes and centerpieces; and the candy production techniques of filling, enrobing and dipping. Upon completion, students should be able to properly evaluate tempered chocolate and produce a variety of chocolate candies and decorative elements for garnishing desserts.

BPA 230A. Chocolate Artistry Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in the art and craft of chocolate. Emphasis is placed on chocolate tempering, piping, and molding; decorative work associated with cakes and centerpieces; and the candy production techniques of filling, enrobing and dipping. Upon completion, students should be able to demonstrate a basic proficiency in the preparation of decorative chocolate centerpieces, garnishes and candies.

BPA 240. Plated Desserts. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides a study in the elements and principles of design as they relate to plated desserts. Topics include plate composition, portioning, flavor pairings, textures, temperatures, eye appeal, balance, color harmony and plate decorating/painting techniques such as stenciling and chocolate striping. Upon completion, students should be able to demonstrate competence in combining a variety of dessert components enhanced with plate decorating techniques.

BPA 250. Dessert and Bread Production. 5.0 Credits. Class-1.0. Clinical-0.0. Lab-8.0. Work-0.0
This course is designed to merge artistry and innovation with the practical baking and pastry techniques utilized in a production setting. Emphasis is placed on quantity bread and roll-in dough production, plated and platter presentations, seasonal/theme product utilization and cost effectiveness. Upon completion, students should be able to plan, prepare and evaluate breads and desserts within a commercial environment and determine production costs and selling prices.

BPA 260. Pastry and Baking Marketing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to cover the marketing concepts and merchandising trends utilized in bakery and pastry operations. Emphasis is placed on menu planning, pricing products/strategies, resale and wholesale distribution methods, legal implications, and advertising techniques. Upon completion, students should be able to create a marketing plan that will serve as a basis for a capstone experience.

Banking and Finance (BAF)

BAF 121. Economics for Bankers. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide bankers with an introduction to the fundamental principles of economics. Emphasis is placed on the basics of economics theory, macroeconomics, and examples of the application of economics to banking. Upon completion, students should be able to interpret economic indicators, relate basic principles of economic theory, describe inflation, and compare and contrast economic systems.

Prerequisites: Take both of the following groups:
- Take 1 course From MAT 080 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 MAT 285 with a minimum grade of C
- Take 1 course From RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

Biology (BIO)

BIO 110. Principles of Biology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/mathematics.

BIO 111. General Biology I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of BIO 111. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 112. General Biology II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 120. Introductory Botany. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
BIO 130. Introductory Zoology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

BIO 140. Environmental Biology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues.

BIO 140A. Environmental Biology Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues.

BIO 143. Field Biology Minicourse. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the biological and physical components of a field environment. Emphasis is placed on a local field environment with extended field trips to other areas. Upon completion, students should be able to demonstrate an understanding of the biological and physical components of the specific biological environment.

BIO 145. Ecology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an introduction to ecological concepts using an ecosystems approach. Topics include energy flow, nutrient cycling, succession, population dynamics, community structure, and other related topics. Upon completion, students should be able to demonstrate comprehension of basic ecosystem structure and dynamics.
Prerequisites: Take One: BIO 110 or BIO 111

BIO 155. Nutrition. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a person’s acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

BIO 161. Introduction to Human Biology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a basic survey of human biology. Emphasis is placed on the basic structure and function of body systems and the medical terminology used to describe normal and pathological states. Upon completion, students should be able to demonstrate an understanding of normal anatomy and physiology and the appropriate use of medical terminology.

BIO 163. Basic Anatomy & Physiology. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

BIO 168. Anatomy and Physiology I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take ENG 112 with a minimum grade of C
• Take ENG 113 with a minimum grade of C
• Take ENG 114 with a minimum grade of C

BIO 169. Anatomy and Physiology II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-Base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate and in-Depth understanding of principles of anatomy and physiology and their interrelationships. This course has been approved to satisfy the comprehensive articulation agreement pre-Major and/or elective course requirement.
Prerequisites: Take BIO 168 with a minimum grade of C

BIO 175. General Microbiology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
BIO 191. Selected Topics in Biology. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics course must have an instructor’s permission.

BIO 193. Selected Topics in Biology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any biology topics must have an instructor’s permission.

BIO 235. Ornithology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the biology of birds. Emphasis is placed on the systematics, recognition, distribution, anatomy, physiology, behavior, and ecology of birds. Upon completion, students should be able to identify various avian species and demonstrate a knowledge of their biology and ecology.
Prerequisites: Take One: BIO 110 or BIO 111
Take BIO 110 or BIO 111 with a minimum grade of C

BIO 243. Marine Biology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the physical and biological components of the marine environment. Topics include major habitats, the diversity of organisms, their biology and ecology, marine productivity, and the use of marine resources by humans. Upon completion, students should be able to identify various marine habitats and organisms and to demonstrate a knowledge of their biology and ecology.
Prerequisites: Take One: BIO 110 or BIO 111
Take BIO 110 or BIO 111 with a minimum grade of C

BIO 250. Genetics. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, evolution, and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

BIO 275. Microbiology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.

Blueprint Reading (BPR)

BPR 130. Print Reading-Construction. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

Business (BUS)

BUS 110. Introduction to Business. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take ENG 111 with a minimum grade of C

BUS 112. SIFE Business Development. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides students with opportunities for practical application of concepts taught in business, marketing, and economics courses. Emphasis is placed on free markets in a global economy, how entrepreneurs succeed, personal financial success skills, and business ethics. Upon completion, students should be able to demonstrate knowledge in business, marketing, and economics and display creative problem-solving, public speaking, leadership, and public relations skills.

BUS 115. Business Law I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
BUS 116. Business Law II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course continues the study of ethics and business law. Emphasis is placed on bailments, sales, risk-bearing, forms of business ownership, and copyrights. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

BUS 121. Business Math. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.
Prerequisites:
• Take MAT 080 or DMA 050 with a minimum grade of C
• Take RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 125. Personal Finance. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

BUS 135. Principles of Supervision. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic responsibilities and duties of the supervisor and his/her relationship to higher-level supervisors, subordinates, and associates. Emphasis is placed on effective utilization of the work force and understanding the role of the supervisor. Upon completion, students should be able to apply supervisory principles in the work place.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 137. Principles of Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 139. Entrepreneurship I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 152. Human Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C
BUS 153. Human Resources Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 193. Selected Topics in Entrepreneurship. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. This course introduces the principles of entrepreneurship and issues faced by entrepreneurs.
Prerequisites: Take BUS 110

BUS 200. Purchasing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the purchasing function and explains its role in business. Topics include the legal and ethical aspects of purchasing, quality assurance, and the application of purchasing formulas and methods for cost analysis. Upon completion, students should be able to complete a purchase transaction incorporating legal, ethical, quality, and cost considerations.
Prerequisites: Take ACC 120 with a minimum grade of C

BUS 201. Investment Analysis. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines the concepts related to financial investment and the fundamentals of managing investments. Emphasis is placed on the securities markets, stocks, bond, and mutual funds, as well as tax implications of investment alternatives. Upon completion, students should be able to analyze and interpret investment alternatives and report findings to users of financial information.
Prerequisites:
• Take ACC 120 with a minimum grade of C

BUS 202. Business Finance. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.
Prerequisites: Take ACC 120 with a minimum grade of C

BUS 217. Employment Law and Regulations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 218. Small Business Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 219. Computerized Inventory. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of inventory procedures as related to management decisions. Emphasis is placed on general terms, methods, techniques, and computer applications. Upon completion, students should be able to apply inventory principles and processes in the workplace.

BUS 224. Training and Development. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers developing, conducting, and evaluating employee training with attention to adult learning principles. Emphasis is placed on conducting a needs assessment, using various instructional approaches, designing the learning environment, and locating learning resources. Upon completion, students should be able to design, conduct, and evaluate a training program.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C
BUS 237. Current Management Issues. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces current management issues and problems. Emphasis is placed on the management topics and challenges faced by all employees in an organization. Upon completion, students should be able to critically analyze alternative solutions within a team environment.

BUS 240. Business Ethics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.
Prerequisites:
• Take BUS 110 with a minimum grade of C
• Take ENG 090 RED 090 ENG 095 ENG 111 or DRE 098

BUS 252. Labor Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history of the organized labor movement and the contractual relationship between corporate management and employees represented by a union. Topics include labor laws and unfair labor practices, the role of the NLRB, organizational campaigns, certification/decertification elections, and grievance procedures. Upon completion, students should be able to act in a proactive and collaborative manner in an environment where union representation exists.

BUS 255. Organizational Behavior in Business. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.
Prerequisites: Take BUS 110 with a minimum grade of C

BUS 256. Recruiting, Selection & Personnel Planning. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records; and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives. This course is a unique requirement of the Human Resources Management concentration in the Business Administration program.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 258. Compensation and Benefits. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to study the basic concepts of pay and its role in rewarding performance. Topics include wage and salary surveys, job analysis, job evaluation techniques, benefits, and pay-for-performance programs. Upon completion, students should be able to develop and manage a basic compensation system to attract, motivate, and retain employees. This course is a unique requirement of the Human Resources Management concentration in the Business Administration program.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

BUS 259. HRM Applications. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students in the human resource management concentration the opportunity to reinforce their learning experiences from preceding HRM courses. Emphasis is placed on application of day-to-day HRM functions by completing in-basket exercises and through simulations. Upon completion, students should be able to determine the appropriate actions called for by typical events that affect the status of people at work. This course is a unique concentration requirement of the human resources management concentration in the business administration program.

Cardiovascular Tech (Invasive) (ICT)

ICT 114. Intro Cardiovascular Tech. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information related to the profession and practice of Cardiovascular Technology. Emphasis is placed on the overview of medical-legal and ethical aspects of healthcare and cardiovascular imaging modalities. Upon completion, students should have an understanding of the field of Cardiovascular Technology, cardiovascular imaging modalities, and medical-legal/ethical issues.

ICT 134. Cv Anatomy & Physiology. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information related to cardiovascular anatomy and physiology. Emphasis is placed on the hemodynamics of pathophysiological disease states, embryology and the diagnosis and treatment of cardiovascular diseases. Upon completion, students should be able to describe normal and abnormal cardiovascular diseases, associated hemodynamic findings, and treatment options.

ICT 136. Cardiac Cath I. 5.0 Credits. Class-3.0. Clinical-3.0. Lab-2.0. Work-0.0
This course provides an introduction to diagnostic techniques utilized in the cardiac catheterization lab. Emphasis will be placed on cardiovascular angiographic procedures and assessment, x-ray theory and safety, pharmacology and development of cath lab skills. Upon completion, students should be able to identify cardiovascular anatomy through angiographic assessment, identify basic cardiovascular drugs and demonstrate basic cath lab skills.
ICT 214. Cardiac Cath II. 8.0 Credits. Class-3.0. Clinical-12.0. Lab-2.0. Work-0.0
This course provides advanced study of diagnostic and interventional techniques utilized in the cardiac catheterization lab. Emphasis is placed on analysis of hemodynamics, calculations and protocols. Instrumentation utilized in interventional procedures. Upon completion, students should be able to demonstrate competency in analysis of hemodynamics data, apply concepts of interventional procedures and increased competence in clinical skills.
Prerequisites:
• Take ICT 136 NCT 133 NCT 143 with a minimum grade of C

ICT 234. Cardiac Cath III. 12.0 Credits. Class-2.0. Clinical-30.0. Lab-0.0. Work-0.0
This course will provide continued opportunity for clinical experience for the student by utilizing a full time clinical internship. Emphasis is placed on supervised participation in the cardiac catheterization lab. Upon completion, students should be able to describe cardiac catheterization techniques and demonstrate entry level skills.
Prerequisites: Take ICT 214

ICT 244. Peripheral Vascular Catheterization. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to diagnostic and interventional techniques used in the treatment and management of peripheral vascular disease. Emphasis is placed on peripheral vascular anatomy, diagnostic and interventional instrumentation, procedural techniques and applications related to peripheral vascular disease. Upon completion, students should be able to describe peripheral vascular anatomy and discuss protocols, applications and instrumentation used in peripheral vascular diagnostic and interventional procedures.

ICT 254. Introduction to Cardiac Electrophysiology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces concepts unique to diagnostic and interventional cardiac electrophysiology. Topics include electrophysiology protocols and instrumentation, cardiac ablation, single and dual chamber pacemaker insertion, defibrillator insertion and cardiac resynchronization therapy. Upon completion, students should be able to discuss protocols and instrumentation, cardiac ablation, cardiac pacing defibrillation, and cardiac resynchronization therapy.

Cardiovascular Tech Non-Invasive (NCT)

NCT 113. Electrocardiography. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the principles of electrocardiography, ECG rhythm recognition, and methods of arrhythmia intervention and cardiac pacemaker therapy. Topics include arrhythmia detection, cardiac function, axis determination, AV block, fascicular block, arrhythmia detection, pacemaker technologies and ECG analysis. Upon completion, students should be able to describe electrical and mechanical cardiac function, pacemaker therapy, detect a variety of arrhythmias and acquire and analyze electrocardiograms.

NCT 133. Cardiovascular Ultrasound Principles. 3.0 Credits.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principles of ultrasound applications and instrumentation of cardiovascular imaging procedures. Emphasis is placed on the physical principles of cardiovascular imaging as a diagnostic tool, instrumentation and applicable effects, and bioeffects issues. Upon completion, students should be able to discuss applications of ultrasound imaging, understand instrumentation applications and improve quality imaging while maintaining bioeffects standards.

NCT 143. Echocardiography I. 5.0 Credits. Class-3.0. Clinical-3.0. Lab-3.0. Work-0.0
This course introduces echocardiographic procedures, imaging modalities and their applications in the diagnosis of cardiovascular disease. Emphasis is placed on the diagnostic capabilities of non-invasive procedures in relation to clinical presentations of cardiovascular diseases and development of basic imaging skills. Upon completion, students should be able to perform basic echocardiographic examination and describe the diagnostic information obtained by noninvasive procedures.

NCT 251. Echocardiography II. 7.0 Credits. Class-2.0. Clinical-12.0. Lab-2.0. Work-0.0
This course provides an advanced study of echocardiographic applications and techniques utilized in the diagnosis of acquired cardiovascular diseases. Emphasis is placed on the correlation of echocardiographic findings with the disease state and the ability to relate these findings with the clinical presentation. Upon completion, students should be able to utilize skills necessary to perform an echocardiogram, with recognition of normal and abnormal pathology.
Prerequisites:
• Take ICT 136 NCT 133 NCT 143 with a minimum grade of C

Corequisites: NCT 253

NCT 253. Hemodynamic Echo Principles. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an introduction to the hemodynamic approach in performing an echocardiogram to detect cardiovascular heart disease. Emphasis is placed on the applications of hemodynamic calculations in valvular heart disease and development of quality standard practices for quality patient care outcomes. Upon completion, students should be able to perform hemodynamic calculations on an echocardiogram.
Prerequisites:
• Take ICT 136 NCT 133 NCT 143 with a minimum grade of C

Corequisites: NCT 251

NCT 273. Echocardiography III. 14.0 Credits. Class-3.0. Clinical-30.0. Lab-2.0. Work-0.0
This course provides expanded techniques and concepts required for a comprehensive echocardiographic procedure. Emphasis is placed on advanced qualitative and quantitative calculations by utilizing various imaging modalities in the evaluation of acquired heart disease. Upon completion, students should be able to perform a comprehensive diagnostic echocardiographic examination with relative hemodynamic and quantitative calculations.
Carpentry (CAR)

CAR 110. Introduction to Carpentry. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the student to the carpentry trade. Topics include duties of a carpenter, hand and power tools, building materials, construction methods, and safety. Upon completion, students should be able to identify hand and power tools, common building materials, and basic construction methods.

CAR 111. Carpentry I. 8.0 Credits. Class-3.0. Clinical-0.0. Lab-15.0. Work-0.0
This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision.

CAR 112. Carpentry II. 8.0 Credits. Class-3.0. Clinical-0.0. Lab-15.0. Work-0.0
This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

CAR 113. Carpentry III. 6.0 Credits. Class-3.0. Clinical-0.0. Lab-9.0. Work-0.0
This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

CAR 114. Residential Building Codes. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

CAR 115. Residential Planning/Estimating. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

CAR 140. Basic Carpentry. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers the basic construction of wood structures, and installation, maintenance, and repair of the many components within these structures. Topics include safe use of tools, implementation of standard practices, appropriate use of materials, and installation/repair of components such as doors, windows, roofing, and siding. Upon completion, students should be able to construct, install/repair wooden structures and components using appropriate tools, materials and standard practices from the carpentry trade.

Chemistry (CHM)

CHM 115. Concepts in Chemistry. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic chemical concepts and their applications to daily life for non-science majors. Topics include air pollution, global warming, energy, world of polymers, water and its importance to a technological society, food, drugs, and nuclear chemistry. Upon completion, students should be able to discuss, apply, and appreciate the impact of chemistry on modern society. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CHM 115A. Concepts in Chemistry Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for CHM 115. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 115. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical concepts presented in CHM 115. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CHM 121. Foundations of Chemistry. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for those who have no previous high school chemistry or a grade of C or less in high school chemistry. Topics include matter, structure of the atom, nomenclature, chemical equations, bonding and reactions: mathematical topics include measurements, scientific notation, and stoichiometry. Upon completion students should be able to demonstrate an understanding of chemical concepts and an ability to solve related problems in subsequent chemistry courses. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.
Prerequisites: Take DMA 010 DMA 020 DMA 030 DMA 040 DMA 050 DMA 060 DMA 070 DMA 080
Corequisites: CHM 121A

CHM 121A. Foundations of Chemistry Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for CHM 121. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 121. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 121. You must register for both CHM 121 and CHM 121A unless you have received prior credit for one of these classes.

CHM 130. General, Organic, & Biochemistry. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Take DMA 010 DMA 020 DMA 030 DMA 040 DMA 050 DMA 060 DMA 070 DMA 080
Corequisites: CHM 130A
CHM 130A. General, Organic, & Biochemistry Lab. 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CHM 131. Introduction to Chemistry. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurements, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/mathematics.
Prerequisites: Take DMA 010 DMA 020 DMA 030 DMA 040 DMA 050 DMA 060 DMA 070 DMA 080 CHM 121
Corequisites: CHM 131A

CHM 131A. Introduction to Chemistry Lab. 1.0 Credit. Class-0.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131. You must register for both CHM 131 and CHM 131A unless you have received prior credit for one of these classes. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/mathematics.

CHM 132. Organic and Biochemistry. 4.0 Credits. Class-3.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 151. General Chemistry I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Prerequisites: Complete one of the following options:
• Take MAT 161 MAT 171 or MAT 175 with a minimum grade of C
• Take CHM 121 DMA 010 DMA 020 DMA 030 DMA 040 DMA 050 DMA 060 DMA 070 DMA 080

CHM 152. General Chemistry II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

CHM 191. Selected Topics in Chemistry. 1.0 Credit. Class-1.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Students wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 193. Selected Topics in Chemistry. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. Student wishing to take any chemistry topics courses must have completed two semesters of chemistry and have instructor permission.

CHM 251. Organic Chemistry I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CHM 252. Organic Chemistry II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CHM 293. Selected Topics in Chemistry. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate and understanding of the specific area of study. Students wishing to take chm293 must have completed three semesters of chemistry and have instructor permission.
Civil Engineering (CIV)

CIV 110. Statics/Strength of Mater. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures. Prerequisites: Take MAT 121 MAT 161 MAT 171 or MAT 175 with a minimum grade of C

CIV 111. Soils and Foundations. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil. Prerequisites: Take EGR 250 EGR 251 or MEC 210 with a minimum grade of C

CIV 125. Civil/Surveying CAD. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software. Prerequisites: Take CEG 151

CIV 210. Engineering Materials. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the behavior and properties of Portland cement and asphaltic concretes and laboratory and field testing. Topics include cementing agents and aggregates; water and admixtures; proportioning, production, placing, consolidation, and curing; and inspection methods. Upon completion, students should be able to proportion concrete mixes to attain predetermined strengths and other properties and perform standard control tests. Prerequisites: Take CIV 110 or MEC 250

CIV 211. Hydraulics and Hydrology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic engineering principles and characteristics of hydraulics and hydrology. Topics include precipitation and runoff, fluid statics and dynamics, flow measurement, and pipe and open channel flow. Upon completion, students should be able to analyze and size drainage structures. Prerequisites: Take One: CIV 110 or MEC 250
Take CIV 110 or MEC 250 with a minimum grade of C

CIV 212. Environmental Planning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers water and wastewater technology, erosion and sedimentation control, and other related topics. Topics include collection, treatment, and distribution of water and wastewater and erosion and sedimentation control law. Upon completion, students should be able to demonstrate knowledge of water and wastewater systems and prepare erosion and sedimentation control plans.
**Civil Engineering and Geomatic (CEG)**

**CEG 111. Introduction to Gis and Gnss. 4.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the methods and techniques used in the Geographic Information Systems (GIS) and Global Navigation Satellite Systems (GNSS) professions. Emphasis is placed on data collection and mapping using GIS software. Upon completion, students should be able to use GNSS technologies to collect field data and create GIS maps.

**CEG 115. Intro to Tech & Sustainability. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic skills, sustainability concepts and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, professional ethics, and related topics. Upon completion, students should be able to identify drawing elements and create sketches, perform basic engineering computations and identify measures of sustainable development.

**CEG 151. Cad for Engineering Technology. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces computer-aided drafting (CAD) software. Topics include file and data management, drawing, editing, dimensioning commands, plotting, and related topics. Upon completion, students should be able to create and plot basic drawings and maps using CAD software.

**CEG 210. Construction Materials & Methods. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the behavior and properties of Portland cement, asphaltic concretes, and other construction materials, including construction methods and equipment. Topics include cementing agents, aggregates, water and admixture materials with their proportions, production, placement, consolidation, curing; and their inspection. Upon completion, students should be able to proportion Portland concrete mixes to attain predetermined strengths, perform standard control tests on Portland cement concrete, identify inspection criteria for concretes, identify construction equipment and applications.
Prerequisites: Take EGR 250

**CEG 211. Hydrology & Erosion Control. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic engineering principles and characteristics of hydrology, erosion and sediment control. Topics include stormwater runoff, gravity pipe flow, open channel flow, low impact development (LID), erosion control devices and practices. Upon completion, students should be able to analyze and design gravitational drainage structures, identify LID and erosion control elements, and prepare a stormwater drainage plan.
Prerequisites: Take 3 credits From courses MAT 080 MAT 120 MAT 121 MAT 161 MAT 171

**CEG 212. Introduction to Environmental Technology. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic engineering principles of hydraulics, and water and wastewater technologies. Topics include fluid statics, fluid dynamics, flow measurement, the collection, treatment, and distribution of water and wastewater. Upon completion, students should be able to identify water and wastewater system elements, describe water and wastewater system processes and perform basic hydraulics and treatment computations.
Prerequisites: Take CEG 211

**CEG 230. Subdivision Planning & Design. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the planning and design concepts related to subdivisions including analysis of development standards, engineering, and the creation of CAD drawings. Topics include applicable codes, lot creation, roadway system layout, stormwater drainage, low impact development (LID) concepts, and related topics. Upon completion, students should be able to prepare a set of subdivision plans.

**CEG 235. Project Management and Estimating. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers planning and estimating practices which are applicable to the civil engineering and related construction industries. Emphasis is placed on construction project planning and management, material take-offs labor and equipment requirements in accordance with industry formats, and other economic topics. Upon completion, students should be able to accurately complete material take-offs, prepare cost estimates, and prepare construction schedules.

**Communication (COM)**

**COM 110. Introduction to Communication. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts. Students may be required to prepare and deliver oral reports in public contexts. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in speech/Communication.
Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C

**COM 111. Voice and Diction I. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides guided practice in the proper production of speech. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective natural speech in various contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
**COM 112. Voice and Diction II. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0

This course provides continued practice with articulation, pronunciation, expressiveness, and vocal quality while building skills for adapting the voice to different situations and performance materials. Topics include individual articulation, fluency, quality, and performance problems; specific broadcast/public speaking materials and styles; and Standard English grammar and pronunciation for career success. Upon completion, students should be able to adapt voice and pronunciation style to various situations and use Standard English dialect, grammar, and pronunciation.

**COM 120. Intro to Interpersonal Communication. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts (substitute).

Prerequisites: Complete one of the following options:
• Take RED 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take ENG 090 EFL 111 EFL 112 with a minimum grade of C
• Take RED 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take ENG 112 with a minimum grade of C
• Take ENG 113 with a minimum grade of C
• Take ENG 114 with a minimum grade of C

**COM 130. Nonverbal Communication. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces the contemporary study of nonverbal communication in daily life. Topics include haptics, kinesics, proxemics, facial displays, and appearance. Upon completion, students should be able to analyze/interpret nonverbal communication and demonstrate greater awareness of their own nonverbal communication habits.

Prerequisites: Take COM 110 or COM 120 with a minimum grade of C

**COM 140. Introduction to Intercultural Communication. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one’s primary culture.

Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

**COM 150. Introduction to Mass Communication. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces print and electronic media and the new information technologies in terms of communication theory and as economic, political, and social institutions. Topics include the nature, history, functions, and responsibilities of mass communication industries in a global environment and their role and impact in American society. Upon completion, students should be able to demonstrate awareness of the pervasive nature of mass media and how media operate in an advanced post-industrial society.

Prerequisites: Take ENG 111 with a minimum grade of C

**COM 160. Small Group Communication. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course provides an overview of the theory, practice, and critical analysis of communication in the small group setting. Emphasis is placed on group development, conflict, and conformity; leadership skills and styles; group roles and ranks; and decision making, problem solving, and conflict resolution. Upon completion, students should be able to apply topics of gender, culture, and social-emotional functions within group settings.

Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
COM 251. Public Speaking. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. on business, health and education contexts. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement. Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take ENG 112 with a minimum grade of C
• Take ENG 113 with a minimum grade of C
• Take ENG 114 with a minimum grade of C

COM 232. Election Rhetoric. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of communication styles and topics characteristic of election campaigns. Topics include election speeches, techniques used in election campaigns, and election speech topics. Upon completion, students should be able to identify and analyze techniques and styles typically used in election campaigns. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

COM 233. Persuasive Speaking. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces theory and history of persuasive speaking, covering critical thinking skills in analyzing problems, assessing solutions, and communicating the information to an audience. Emphasis is placed on analysis, evidence, reasoning, and library and field research used to enhance persuasive public speaking skills. Upon completion, students should be able to apply the principles of persuasive speaking in a public setting. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

COM 251. Debate I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principles of debate. Emphasis is placed on argument, refutation, research, and logic. Upon completion, students should be able to use research skills and logic in the presentation of ideas within the context of formal debate.

Computer Engineering Technolog (CET)

CET 111. Computer Upgrade/Repair I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CET 125. Voice and Data Cabling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, including signal transmission. Topics include network design documentation, part list set-up, pulling and mounting cable, cable management, wiring closets, patch panel installation and termination including cable testing. Upon completion, students should be able to understand documentation, design, installation and safety issues associated with voice and data cabling.

CET 193. Selected Topics in Computer Engineering. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0

CET 211. Computer Upgrade/Repair II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers concepts of repair, service, and upgrade of computers and peripherals in preparation for industry certification. Topics may include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

CET 212. Integrated Manufacturing Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers computer topics related to integrated manufacturing systems common to current manufacturing facilities. Topics include robot programming, automated control systems, PLCs, data communication, and networking in an integrated manufacturing environment, and other related topics. Upon completion, students should be able to program robots using teaching pendants and troubleshoot and maintain network installations related to integrated manufacturing systems.

CET 225. Digital Signal Processing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts and applications of digital signal processing. Topics include Fourier analysis, signal sampling, digital filtering, IIR filters, FIR filters, and DSP programming. Upon completion, students should be able to implement and troubleshoot DSP systems in hardware and software.
Computer Information Technology (CTS)

CTS 112. Windows (TM). 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes the fundamentals of the Windows(TM) software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows(TM) software in an office environment.

CTS 115. Information Systems Business Concepts. 3.0 Credits.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. Prerequisites:
- Take 1 course From RED 090 EFL 112 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

CTS 118. IS Professional Communications. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

CTS 120. Hardware/Software Support. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

CTS 125. Presentation Graphics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text, graphics, audio and video. Upon completion, students should be able to design and demonstrate an effective presentation.

CTS 130. Spreadsheet. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

CTS 135. Integrated Software Intro. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course instructs students in the Windows or Linux based program suites for word processing, spreadsheet, database, personal information manager, and presentation software. This course prepares students for introductory level skills in database, spreadsheet, personal information manager, word processing, and presentation applications to utilize data sharing. Upon completion, students should be able to design and integrate data at an introductory level to produce documents using multiple technologies.

CTS 155. Tech Support Functions. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.

CTS 210. Computer Ethics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces computer training and support techniques. Topics include methods of adult learning, training design, delivery, and evaluation, creating documentation, and user support methods. Upon completion, students should be able to design and implement training and provide continued support for computer users.

CTS 217. Computer Training/Support. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces computer training and support techniques. Topics include methods of adult learning, training design, delivery, and evaluation, creating documentation, and user support methods. Upon completion, students should be able to design and implement training and provide continued support for computer users.

CTS 220. Advanced Hardware/Software Support. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides advanced knowledge and competencies in hardware and operating system technologies for computer technicians to support personal computers. Emphasis is placed on: configuring and upgrading; diagnosis and troubleshooting; as well as preventive maintenance of hardware and system software. Upon completion, students should be able to install, configure, diagnose, perform preventive maintenance, and maintain basic networking on personal computers.

CTS 230. Advanced Spreadsheet. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced spreadsheet design and development. Topics include advanced functions and statistics, charting, macros, databases, and linking. Upon completion, students should be able to demonstrate competence in designing complex spreadsheets.

CTS 235. Integrated Software Advanced. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides strategies to perform data transfer among software programs. Emphasis is placed on data interchange among word processors, spreadsheets, presentation graphics, databases and communications products. Upon completion, students should be able to integrate data to produce documents using multiple technologies.
CTS 240. Project Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces computerized project management software. Topics include identifying critical paths, cost management, and problem solving. Upon completion, students should be able to plan a complete project and project time and costs accurately.
Prerequisites: Take CIS 115

CTS 250. User Support & Software Evaluation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to evaluate software and hardware and make recommendations to meet end-user needs. Emphasis is placed on software and hardware evaluation, installation, training, and support.
Upon completion, students should be able to present proposals and make hardware and software recommendations based on their evaluations.

CTS 255. Advanced Tech Support Functions. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Topics include technical support management techniques, evaluation, and methods of deployment for technical support technologies. Upon completion, students should be able to determine the best technologies to support and solve complex technical support problems.

CTS 270. Essentials of System Performance. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces performance factors that affect the reliability and performance of networks. Topics include service-oriented indicators such as availability, response time, and accuracy, as well as efficiency-oriented indicators including throughput and utilization. Upon completion, students should be able to estimate how the limitations of network components affect the overall performance of a network.

CTS 285. Systems Analysis & Design. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/ OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.
Prerequisites: Take CIS 115 with a minimum grade of C

CTS 286. Network Support. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides experience using CD ROM and on-line research tools and hands-on experience for advanced hardware support and troubleshooting. Emphasis is placed on troubleshooting network adapter cards and cabling, network storage devices, the DOS workstation, and network printing. Upon completion, students should be able to analyze, diagnose, research, and fix network hardware problems.

CTS 287. Emerging Technologies. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces emerging information technologies. Emphasis is placed on evolving technologies and trends in business and industry.
Upon completion, students should be able to articulate an understanding of the current trends and issues in emerging technologies for information systems.

CTS 288. Professional Practices in IT. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides students with the business skills needed for success in the information technology field. Topics include portfolio development, resume design, interviewing techniques and professional practices. Upon completion, students should be able to prepare themselves and their work for a career in the information technology field.

CTS 289. System Support Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training.
Upon completion, students should be able to complete a project from the definition phase through implementation.

Computer Science (CSC)

CSC 120. Computing Fundamentals I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system.
Prerequisites: Complete one of the following options:
• DMA 010, DMA 020, DMA 030, DMA 040, and DMA 050
• MAT 080
• MAT 090
• MAT 095
• MAT 120
• MAT 121
• MAT 161
• MAT 171
• MAT 175

CSC 130. Computing Fundamentals II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CSC 133. C Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the C programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a beginning level.
CSC 134. C++ Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites: Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

CSC 135. COBOL Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the COBOL programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a beginning level.

CSC 139. Visual BASIC Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.

CSC 140. Visual C Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces event-driven computer programming using the Visual C programming languages. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual C language programs.

CSC 141. Visual C++ Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the Visual C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at a beginning level.

CSC 142. Visual COBOL Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the Visual COBOL programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a beginning level.

CSC 143. Object-Oriented Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts of object-oriented programming. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, test, debug, and implement objects at the application level using the appropriate environment.
Prerequisites:
• Take 1 course From RED 090 EFL 112 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

CSC 151. JAVA Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
Prerequisites:
• Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

CSC 153. C# Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level.
Prerequisites:
• Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 ENG 114 with a minimum grade of C

CSC 193. Selected Topics in Information Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0

CSC 220. Machine Implementation of Algorithms. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the organization and operation of real computer systems at the assembly language level. Topics include mapping of statements and constructs onto machine instruction sequences, internal data types and structures representation, numerical computation, and iterative approximation methods. Upon completion, students should be able to analyze computer system organization, implement procedural language elements, and describe the programming language translation process. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
College-Level Courses

**CSC 233. Advanced C Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 133 using the C programming language with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.

**CSC 234. Advanced C++ Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 144 using the C++ programming language with standard programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.

**CSC 235. Advanced COBOL Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 135 using the COBOL programming language with structured programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document command level COBOL programs for menuing, record processing, browsing, and temporary storage. Additional topics include multiple screen control (paging), multiple map control, user-Defined symbolic maps, extended attributes, and VSAM variable-Length records.

**CSC 239. Advanced Visual BASIC Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 139 using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.
Prerequisites: Take CSC 139 with a minimum grade of C

**CSC 240. Advanced Visual C. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 140 using Visual C with structured programming principles. Emphasis is placed on advanced arrays, file management/processing techniques, data structures, functions, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug, and document programming solutions.

**CSC 241. Advanced Visual C++ Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 141 using the Visual C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

**CSC 244. CICS. 5.0 Credits.** Class-4.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an in-Depth study of interactive transaction processing using command level CICS. Topics include pseudoconversational programming, basic mapping support, control tables, storage areas, file maintenance, screen design, and edf debugging. Upon completion, students should be able to design, code, test, debug, and document command level CICS programs for menuing, record processing, browsing, and temporary storage. Additional topics include multiple screen control (paging), multiple map control, user-Defined symbolic maps, extended attributes, and VSAM variable-Length records.

**CSC 246. Realtime Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the techniques for programming in a realtime environment. Topics include signals, critical sections, polling, interface devices, timing, open and closed loop control, speed/size optimization, and special considerations for embedded controllers. Upon completion, students should be able to write and modify interface routines used with time-critical applications.

**CSC 248. Emerging Computer Programming Technologies. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an in-Depth study of interactive transaction processing using command level CICS. Topics include pseudoconversational programming, basic mapping support, control tables, storage areas, file maintenance, screen design, and edf debugging. Upon completion, students should be able to design, code, test, debug, and document command level CICS programs for menuing, record processing, browsing, and temporary storage. Additional topics include multiple screen control (paging), multiple map control, user-Defined symbolic maps, extended attributes, and VSAM variable-Length records.

**CSC 250. Advanced JAVA Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 151 using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.
Prerequisites: Take CSC 151 with a minimum grade of C

**CSC 253. Advanced C# Programming. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of CSC 153 using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

**CSC 258. JAVA Enterprise Programs. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a continuation to CSC 151 using the Java Enterprise Edition (JEE) programming environment. Topics include distributed network applications, database connectivity, Enterprise Java Beans, servlets, collection frameworks, JNDI, RMI, JSP, multithreading XML and multimedia development. Upon completion, students should be able to program a client/server enterprise application using the JEE framework.
Prerequisites: Take CSC 151 with a minimum grade of C

**CSC 284. Emerging Computer Prog Technologies. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides students with the latest technologies and strategies in the field of Computer Programming. Emphasis is placed on the evaluation of developing Computer Programming Technologies and presenting those findings to the class. Upon completion, students should be able to critically analyze emerging Computer Programming Technologies and establish informed opinions.
CSC 289. Programming Capstone Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the design phase through implementation.

Computer Tech Integration (CTI)

CTI 110. Web, Programming, and Database Foundation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.
Prerequisites: Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

CTI 120. Network and Security Foundation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.
Prerequisites: Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

CTI 130. Operating Systems and Device Foundation. 6.0 Credits. Class-4.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the basic hardware and software of a personal computer, including installation, operations and interaction with popular microcomputer operating systems. Topics include components identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/ maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.
Prerequisites: Take RED 090 EFL 112 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

CTI 289. Computer Technology Integration Capstone Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides students an opportunity to complete a significant integrated technology project from the design phase through implementation with minimal instructor support. Emphasis is placed on technology policy, process planning, procedure definition, systems architecture, and security issues to create projects for the many areas in which computer technology is integrated. Upon completion, students should be able to create, implement, and support a comprehensive technology integration project from the planning and design phase through implementation.
Prerequisites: Take CTI 110 CTI 120 with a minimum grade of C

Construction (CST)

CST 111. Construction I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers standard and alternative building methods to include wall framing. Topics include safety and footings, foundations, floor framing systems, and wall framing systems commonly used in the construction industry. Upon completion, students should be able to safely erect all framing necessary to begin roof framing.

CST 150. Building Science. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts and techniques for the design and interaction of the mechanical systems of high performance buildings. Topics include building envelope, heating, ventilation and air conditioning (HVAC), indoor air quality, lighting, plumbing and electrical. Upon completion, students should be able to understand building systems interaction and performance.

CST 241. Planning/Estimating I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.

CST 242. Planning/Estimating II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers planning and estimating practices which are applicable to commercial construction. Emphasis is placed on planning and developing take-offs of materials, labor, and equipment in accordance with industry formats. Upon completion, students should be able to accurately complete take-offs and planning time lines necessary to complete a commercial structure.

CST 244. Sustainable Building Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to increase student knowledge about integrating sustainable design principles and green building technologies into mainstream residential construction practices. Emphasis is placed on reducing negative environmental impact and improving building performance, indoor air quality and the comfort of a building’s occupants. Upon completion, students should be able to identify principles of green building, environmental efficiency and conservation of natural resources in relation to basic construction practices.

Construction Management (CMT)

CMT 120. Codes and Inspections. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principals and requirements to construction projects.
CMT 210. Construction Management Fundamentals. 3.0 Credits.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, problem-solving, communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, students should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

CMT 212. Total Safety Performance. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, the student should be able to properly supervise safety at a construction jobsite and qualify for OSHA Training Certification.

CMT 214. Planning and Scheduling. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the need for and the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling formats, planning for production, short interval planning, schedule updating and revising, and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills.

CMT 216. Costs and Productivity. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the relationships between time, work completed, work-hours spent, schedule duration, equipment hours, and materials used. Topics include production rates, productivity unit rates, work method improvements, and overall total project cost control. Upon completion, the student should be able to demonstrate an understanding of how costs may be controlled and productivity improved on a construction project.

CMT 218. Human Relations Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides instruction on human relations issues as they relate to construction project supervision. Topics include relationships, human behavior, project staffing issues, teamwork, effective communication networks, laws and regulations, and identifying and responding to conflict, crisis, and discipline. Upon completion, the student will demonstrate an understanding of the importance of human relations in the success of a construction project.

Cooperative Education (COE)

COE 111. Co-Op Work Experience I. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-10.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 112. Co-Op Work Experience I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-20.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 113. Co-Op Work Experience I. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-30.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 114. Co-Op Work Experience I. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-40.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 115. Work Experience Seminar I. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course description may be written by the individual colleges.

COE 121. Co-Op Work Experience II. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-10.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 122. Co-Op Work Experience II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-20.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 125. Work Experience Seminar II. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course description may be written by the individual colleges.

COE 131. Co-Op Work Experience III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-0.0. Work-10.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.
COE 132. Co-Op Work Experience III. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-20.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 133. Co-Op Work Experience III. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-30.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 211. Co-Op Work Experience IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-0.0. Work-10.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 212. Co-Op Work Experience IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-20.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 213. Co-Op Work Experience IV. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-30.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 221. Co-Op Work Experience V. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-10.0
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COS 111. Cosmetology Concepts I. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS 112. Salon I. 8.0 Credits. Class-0.0. Clinical-0.0. Lab-24.0. Work-0.0
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS 113. Cosmetology Concepts II. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS 114. Salon II. 8.0 Credits. Class-0.0. Clinical-0.0. Lab-24.0. Work-0.0
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS 115. Cosmetology Concepts III. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superficial hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS 116. Salon III. 4.0 Credits. Class-0.0. Clinical-0.0. Lab-12.0. Work-0.0
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS 117. Cosmetology Concepts IV. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

COS 118. Salon IV. 7.0 Credits. Class-0.0. Clinical-0.0. Lab-21.0. Work-0.0
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.
COS 223. Contemp Hair Coloring. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

COS 240. Contemporary Design. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and apply techniques associated with contemporary design.

Criminal Justice (CJC)

CJC 100. Basic Law Enforcement Training. 19.0 Credits. Class-9.0. Clinical-0.0. Lab-30.0. Work-0.0
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

CJC 100A.B. Basic Law Enforcement Training. 15.0 Credits. Class-6.0. Clinical-0.0. Lab-27.0. Work-0.0
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

CJC 100BB. Basic Law Enforcement Training. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

CJC 111. Introduction to Criminal Justice. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CJC 112. Criminology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113. Juvenile Justice. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114. Investigative Photography. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers methods and techniques for contemporary designs. Emphasis is placed on contemporary designs and other related topics. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage and retrieval in criminal investigations.

CJC 116. Introduction to Information Security. 0.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basic skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Topics are divided into general units of study: legal, patrol duties, law enforcement communications, investigations, practical application and sheriff-specific. Upon successful completion, the student will be able to demonstrate competence in the topics and areas required for the state comprehensive certification examination. This is a certificate-level course.

CJC 120. Interviews/Interrogations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the operation of digital photographic equipment and its application to criminal justice. Topics include the use of digital cameras, storage of digital images, the retrieval of digital images and preparation of digital images as evidence. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage and retrieval in criminal investigations.

CJC 121. Law Enforcement Operations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the operation of digital photographic equipment and its application to criminal justice. Topics include the use of digital cameras, storage of digital images, the retrieval of digital images and preparation of digital images as evidence. Upon completion, students should be able to demonstrate and explain the role and use of digital photography, image storage and retrieval in criminal investigations.

CJC 122. Community Policing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the historical, philosophical, and practical dimensions of community policing. Emphasis is placed on the empowerment of police and the community to find solutions to problems by forming partnerships. Upon completion, students should be able to define community policing, describe how community policing strategies solve problems, and compare community policing to traditional policing.
CJC 131. Criminal Law. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132. Court Procedure & Evidence. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141. Corrections. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

CJC 144. Crime Scene Processing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes, recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate the appropriate techniques.

CJC 145. Crime Scene CAD. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the student to CAD software for crime scenes. Topics include drawing, editing, file management and drafting theory and practices. Upon completion, the students should be able to produce and plot a crime scene drawing.

CJC 146. Trace Evidence. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.

CJC 151. Introduction to Loss Prevention. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

CJC 160. Terrorism: Underlying Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course identifies the fundamental reasons why America is a target for terrorists, covering various domestic/international terrorist groups and ideologies from a historical aspect. Emphasis is placed upon recognition of terrorist crime scene; weapons of mass destruction; chemical, biological, and nuclear terrorism; and planning considerations involving threat assessments. Upon completion, students should be able to identify and discuss the methods used in terrorists' activities and complete a threat assessment for terrorists' incidents.

CJC 161. Introduction to Homeland Security. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the historical, organizational and practical aspects of Homeland Security. Topics include a historic overview, definitions and concepts, organizational structure, communications, technology, mitigation, prevention and preparedness, response and recovery, and the future of Homeland Security. Upon completion, students should be able to explain essential characteristics of terrorism and Homeland Security, and define roles, functions and interdependency between agencies.

CJC 162. Intelligence Analysis and Security Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines intelligence analysis and its relationship to the security management of terrorist attacks and other threats to national security of the United States. Topics include a historic overview, definitions and concepts, intelligence evolution-politicization-operations-strategies, surveillance, analysis perspectives, covert action, and ethics. Upon completion, students should be able to outline intelligence policies, evaluate source information, implement intelligence techniques and analysis, identify threats, and apply ethical behaviors.

CJC 163. Transportation and Border Security. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth view of modern border and transportation security including the technologies used for detecting potential threats from terrorists and weapons. Topics include an overview of security challenges, detection devices and equipment, transportation systems, facilities, threats and counter-measures, and security procedures, policies and agencies. Upon completion, students should be able to describe border security, the technologies used to enforce it, and the considerations and strategies of border security agencies.

CJC 170. Critical Incident Mgmt for Public Safety. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares the student to specialize in the direct response, operations, and management of critical incidents. Emphasis is placed upon the theoretical and applied models to understand and manage disasters, terrorism, and school/work place violence. Upon completion, the student should be able to identify and discuss managerial techniques legal issues, and response procedures to critical incidents.
CJC 211. Counseling. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic elements of counseling and specific
techniques applicable to the criminal justice setting. Topics include
observation, listening, recording, interviewing, and problem exploration
necessary to form effective helping relationships. Upon completion,
students should be able to discuss and demonstrate the basic techniques
of counseling.

CJC 212. Ethics & Community Relations. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course covers ethical considerations and accepted standards
applicable to criminal justice organizations and professionals. Topics
include ethical systems; social change, values, and norms; cultural
diversity; citizen involvement in criminal justice issues; and other related
topics. Upon completion, students should be able to apply ethical
considerations to the decision-making process in identifiable criminal
justice situations.

CJC 213. Substance Abuse. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course is a study of substance abuse in our society. Topics include
the history and classifications of drug abuse and the social, physical, and
psychological impact of drug abuse. Upon completion, students should be
able to identify various types of drugs, their effects on human behavior and
society, and treatment modalities.

CJC 214. Victimology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course introduces the study of victims. Emphasis is placed on roles/
characteristics of victims, victim interaction with the criminal justice system
and society, current victim assistance programs, and other related topics.
Upon completion, students should be able to discuss and identify victims,
the uniqueness of victims' roles, and current victim assistance programs.

CJC 215. Organization & Administration. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the components and functions of organization and
administration as it applies to the agencies of the criminal justice system.
Topics include operations/functions of organizations; recruiting, training,
and retention of personnel; funding and budgeting; communications;
span of control and discretion; and other related topics. Upon completion,
students should be able to identify and discuss the basic components
and functions of a criminal justice organization and its administrative
operations.

CJC 216. Computer System Security Investigation. 3.0 Credits.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the investigation of illegal activity affecting computer
systems and security. Emphasis will be placed on design techniques,
security architecture, discretionary and mandatory controls, memory
protection, distributed systems and legal issues pertaining to computer
operations security. Upon completion, students should be able to
recognize and identify potential problem areas in computer systems and
provide assistance in solving security problems. This course is a unique
requirement in the Financial Crime/Computer Fraud concentration in the
Criminal Justice Technology program.

CJC 217. Network Security Troubleshooting. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course enables students to apply the investigative skills they
have learned to operating systems and networks. Topics will include
security technologies for multiple platforms, encryption techniques and
authentication and key distribution systems. Upon completion, students
will be able to contrast competing schemes and describe mistakes made
in design, which could lead to criminal activity. This course is a unique
requirement in the Financial Crime/Computer Fraud concentration in the
Criminal Justice Technology program.

CJC 221. Investigative Principles. 4.0 Credits. Class-3.0. Clinical-0.0.
Lab-2.0. Work-0.0
This course introduces the theories and fundamentals of the investigative
process. Topics include crime scene/incident processing, information
gathering techniques, collection/preservation of evidence, preparation of
appropriate reports, court presentations, and other related topics. Upon
completion, students should be able to identify, explain, and demonstrate
the techniques of the investigative process, report preparation, and
courtroom presentation.

CJC 222. Criminalistics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course covers the functions of the forensic laboratory and its
relationship to successful criminal investigations and prosecutions. Topics
include advanced crime scene processing, investigative techniques,
current forensic technologies, and other related topics. Upon completion,
students should be able to identify and collect relevant evidence at
simulated crime scenes and request appropriate laboratory analysis of
submitted evidence.

CJC 223. Organized Crime. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course introduces the evolution of traditional and non-traditional
organized crime and its effect on society and the criminal justice system.
Topics include identifying individuals and groups involved in organized
crime, areas of criminal activity, legal and political responses to organized
crime, and other related topics. Upon completion, students should be able
to identify the groups and activities involved in organized crime and the
responses of the criminal justice system.

CJC 225. Crisis Intervention. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course introduces critical incident intervention and management
techniques as they apply to operational criminal justice practitioners.
Emphasis is placed on the victim/offender situation as well as job-
related high stress, dangerous, or problem-solving citizen contacts.
Upon completion, students should be able to provide insightful analysis
of emotional, violent, drug-induced, and other critical and/or stressful
incidents that require field analysis and/or resolution.

CJC 231. Constitutional Law. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
The course covers the impact of the Constitution of the United States
and its amendments on the criminal justice system. Topics include
the structure of the Constitution and its amendments, court decisions pertinent
to contemporary criminal justice issues, and other related topics. Upon
completion, students should be able to identify/discuss the basic structure
of the United States Constitution and the rights/procedures as interpreted
by the courts.
CJC 252. Forensic Chemistry II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

CJC 255. Issues in Criminal Justice Application. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to exhibit interpersonal and technical skills required for application of criminal justice concepts in contemporary practical situations. Emphasis is placed on critical thinking and integration of theory and practical skills components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level law enforcement officer.

Culinary (CUL)

CUL 110. Sanitation and Safety. 0.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam. Prerequisites: Take both of the following groups:
• Take ENG 090 RED 090 with a minimum grade of C
• Take DMA 010 DMA 020 DMA 030 DMA 040 DMA 050
Corequisites: CUL 111

CUL 111. Success in Hospitality Studies. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an orientation to the resources available and academic skills necessary to achieve success in a hospitality program. Emphasis is placed on technical and interpersonal skills, study skills, ethics, professionalism and time management as they relate to a hospitality field. Upon completion, students should be able to manage their learning experiences to successfully meet their educational goals. Prerequisites:
• Take ENG 090 RED 090 with a minimum grade of C
• Take DMA 010 DMA 020 DMA 030 DMA 040 DMA 050
Corequisites: CUL 110
College-Level Courses

CUL 112. Nutrition for Foodservice. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the principles of nutrition and its relationship to the foodservice industry. Topics include personal nutrition fundamentals, weight management, exercise, nutritional adaptation/analysis of recipes/menus, healthy cooking techniques and marketing nutrition in a foodservice operation. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.
Prerequisites: Take CUL 111 with a minimum grade of C

CUL 130. Menu Design. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces menu design and its relationship to foodservice operations. Topics include layout, marketing, concept development, dietary concerns, product utilization, target consumers and trends. Upon completion, students should be able to design, create and produce menus for a variety of foodservice settings.
Prerequisites: Take CUL 111 with a minimum grade of C

CUL 135. Food and Beverage Service. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to cover the practical skills and knowledge necessary for effective food and beverage service in a variety of settings. Topics include greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate competence in human relations and the skills required in the service of foods and beverages.
Prerequisites: Take CUL 110 CUL 140 with a minimum grade of C
Corequisites: CUL 135A

CUL 135A. Food and Beverage Service Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in effective food and beverage service. Emphasis is placed on practical experiences including greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate practical applications of human relations and the skills required in the service of foods and beverages.

CUL 140. Culinary Skills I. 5.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on recipe conversion, measurements terminology, knife skills, safe food handling, cooking methods, flavorings, seasonings, stocks/Sauces/Soups, and other related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the food service industry. Guest service may be a course component.
Prerequisites: Take MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 or MAT 285 with a minimum grade of C
Corequisites: Take CUL 110

CUL 140A. Culinary Skills I Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides laboratory experience for enhancing student skills in the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on practical experiences including recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to demonstrate competency in the basic cooking skills used in the foodservice industry.

CUL 142. Fundamentals of Food. 5.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the student to the basic principles of cooking, baking and kitchen operations. Topics include preparation methods for protein, starch, vegetable/fruit identification/selection, storage; breakfast cookery, breads, sweet dough/pastries, basic fabrication, knife skills, and mise en place. Upon completion, students should be able to execute efficiently a broad range of basic cooking/baking skills as they apply to different stations in foodservice operations.

CUL 150. Food Science. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the chemical and physical changes in foods that occur with cooking, handling, and processing. Emphasis is placed on practical application of heat transfer and its effect on color/flavor/texture, emulsification, protein coagulation, leavening agents, viscosity, and gel formation. Upon completion, students should be able to demonstrate an understanding of these principles as they apply to food preparation in an experimental setting.
Prerequisites: Take CUL 110 CUL 140 with a minimum grade of C

CUL 160. Baking I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.
Prerequisites: Take CUL 240 with a minimum grade of C
Corequisites: Take CUL 110

CUL 160A. Baking I Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in basic baking. Emphasis is placed on the practical experiences of yeast/chemically leavened products, laminated/pastry dough, batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate a basic proficiency in bakeshop applications.

CUL 170. Garde Manger I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.
Prerequisites: • Take CUL 260 with a minimum grade of C
Corequisites: Take CUL 110

CUL 170A. Garde Manger I Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in basic cold food preparation techniques and pantry production. Emphasis is placed on the practical experiences that include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to demonstrate proficiency in the design of a cold food display.
CUL 230. Global Cuisines. 5.0 Credits. Class-1.0. Clinical-0.0. Lab-8.0. Work-0.0
This course provides practical experience in the planning, preparation, and presentation of representative foods from a variety of world cuisines. Emphasis is placed on indigenous ingredients and customs, nutritional concerns, and cooking techniques. Upon completion, students should be able to research and execute a variety of international and domestic menus.
Prerequisites: Take All: CUL 110 and CUL 140
Corequisites: CUL 230A

CUL 230A. Global Cuisines Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills with cuisines from around the world. Emphasis is placed on production of global cuisines based on historical and geographical influences, ingredients, customs, and cooking techniques. Upon completion, students should be able to exhibit an understanding of the culinary practices and techniques of specific countries.
Prerequisites: Take CUL 110 CUL 140 with a minimum grade of C
Corequisites: Take CUL 230

CUL 240. Culinary Skills II. 5.0 Credits. Class-1.0. Clinical-0.0. Lab-8.0. Work-0.0
This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accommodations; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.
Prerequisites: Take CUL 110 CUL 140 with a minimum grade of C
Corequisites: CUL 240A

CUL 240A. Culinary Skills II Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for furthering students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on practical applications of meat identification/fabrication; butchery and cooking techniques/methods; appropriate vegetable/starch accommodations; compound sauces; plate presentation; breakfast cookery; and food preparation. Upon completion, students should be able to demonstrate a basic proficiency in the preparation of entrees and accompaniments.
Prerequisites: Take CUL 110 CUL 140 with a minimum grade of C
Corequisites: Take CUL 240

CUL 260. Baking II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte decorating, and icing/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.
Prerequisites: Take CUL 110 CUL 160 with a minimum grade of C
Corequisites: CUL 260A

CUL 260A. Baking II Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in classical desserts, laminated pastry dough, cake and torte decorating. Topics include practical experiences with classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to perform cake-decorating techniques, produce pastry showpieces, and prepare and plate assorted pastries.
Prerequisites: Take CUL 110 CUL 160 with a minimum grade of C
Corequisites: Take CUL 260

CUL 270. Garde Manger II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is designed to further students' knowledge in basic cold food preparation techniques and pantry production. Topics include pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering/event display to include a cold buffet with appropriate showpieces.
Prerequisites: Take All: CUL 110, CUL 140, and CUL 170
Corequisites: CUL 270A

CUL 270A. Garde Manger II Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in basic cold food preparation techniques and pantry production. Emphasis is placed on practical experiences with pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to demonstrate proficiency in the design/technical applications of advanced garde manger work including classical cold buffets incorporating appropriate showpieces.
Prerequisites: Take CUL 110 CUL 140 CUL 170 with a minimum grade of C
Corequisites: Take CUL 270

CUL 273. Career Development. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to career planning/management practices that serve as a foundation for success in the hospitality industry. Emphasis is placed on self assessment, goal/career pathway development and employment strategies such as resumes, preparation, interviewing techniques, and developing/utilizing the portfolio as a credential. Upon completion, students should be able to develop a career path leading to an effective job search.

CUL 285. Competition Fundamentals. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides practical experience in planning, techniques, and procedures required for culinary competitions and exhibitions. Emphasis is placed on competition strategies including menu planning, teamwork, plate design, flavor profiles, recipe development, nutrition, advanced knife/culinary skills, professionalism, and portfolio development. Upon completion, students should be able to apply competition/exhibition skills and standards in the competition arena and professional kitchen.
Cyber Crime Technology (CCT)

CCT 110. Introduction to Cyber Crime. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces and explains the various types of offenses that qualify as cyber crime activity. Emphasis is placed on identifying cyber crime activity and the response to these problems from both the private and public domains. Upon completion, students should be able to accurately describe and define cyber crime activities and select an appropriate response to deal with the problem.

CCT 121. Computer Crime Investigation. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental principles of computer crime investigation processes. Topics include crime scene/incident processing, information gathering techniques, data retrieval, collection and preservation of evidence, preparation of reports and court presentations. Upon completion, students should be able to identify cyber crime activity and demonstrate proper investigative techniques to process the scene and assist in case prosecution.

CCT 210. Computer Crime Investigation. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the unique skills and methodologies necessary to analyze Macintosh operating system artifacts and file system mechanics. Topics include Macintosh architecture, HFS (+) based file systems, Macintosh decryption, address book and chat archives, Internet artifacts related to Safari and Firefox. Upon completion, students will be able to use the course processes and methodologies to recover the contents.

CCT 211. Technology Crimes & Law. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the applicable technological laws dealing with the regulation of cyber security and criminal activity. Topics include an examination of state, federal and international laws regarding cyber crime with an emphasis on both general and North Carolina statutes. Upon completion, students should be able to identify the elements of cyber crime activity and discuss the trends of evolving laws.

CCT 220. Forensic Accounting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes involving mobile phones. Topics include the basics of the cellular networks as well as data extraction from GSM, iDEN and CDMA handsets. Upon completion, students should be able to use the course processes and methodologies to obtain forensic evidence from GSM, iDEN and CDMA handsets.

CCT 231. Data Recovery Techniques. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course further explores the methodologies necessary to assist in the investigation and analysis of cyber crimes. Topics include commercial and open-source software tools for working with evidence acquisition, data recovery, and encryption. Upon completion, students should be able to perform the data recovery and analysis for a complete criminal or corporate investigation.

CCT 241. Advanced Data Recovery. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces topics for forensic and data recovery professionals including the relationship between forensic and data recovery topics and their application. Emphasis is placed on the processes and methodologies used to collect an image on damaged evidence where standard forensic imaging would fail. Upon completion, students should be able to identify the types of problems encountered with hard drives and the options available to recover the contents.

CCT 242. Network Vulnerabilities I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces students to penetration testing, network vulnerabilities, and hacking. Topics include an overview of traditional network security, system hardening, and known weaknesses. Upon completion, students should be able to evaluate weaknesses of traditional and wireless network for the purpose of incident response, reconstruction, and forensic investigation.

CCT 250. Network Vulnerabilities II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course advances students knowledge of penetration testing, network vulnerabilities, and hacking. Topics include analyzing advanced techniques for circumventing network security hardware and software. Upon completion, students should be able to assemble test kits for multiple operating systems, scan and footprint networks, and perform advanced forensic investigation.

CCT 251. Mobile Phone Examination. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes involving mobile phones. Topics include the basics of the cellular networks as well as data extraction from GSM, iDEN and CDMA handsets. Upon completion, students should be able to use the course processes and methodologies to obtain forensic evidence from GSM, iDEN and CDMA handsets.

CCT 252. Mac Digital Forensics. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides students with the unique knowledge and skills necessary to analyze Macintosh operating system artifacts and file system mechanics. Topics include Macintosh architecture, HFS (+) based file systems, Macintosh decryption, address book and chat archives, Internet artifacts related to Safari and Firefox. Upon completion, students will be able to use the course processes and methodologies to forensically analyze a Mac computer.

CCT 253. Drive Data Recovery. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes involving the Windows registry. Emphasis is placed on the processes used to locate registry artifacts, including security, SAM, software, system, and NT user data. Upon completion, students should be able to use the course processes and methodologies to obtain forensic evidence from a Windows registry.
CCT 289. Capstone Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides experience in cyber crime investigations or technology security audits in either the public or private domain. Emphasis is placed on student involvement with businesses or agencies dealing with technology security issues or computer crime activities. Upon completion, students should be able to successfully analyze, retrieve erased evidence and testify in mock proceedings against these criminal entrepreneurs. Prerequisites: Take CCT 231 or CCT 220
Take CCT 240

Cytotechnology (CYT)

CYT 210. Intro to Clinical Cyto. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the fundamentals of cell biology, basic histology, and pathology of tumors as they relate to clinical cyto. Topics include basic sciences, as well as inflammatory processes, morphology and classification of microorganisms, and basic clinical cytological terminology. Upon completion, students should be able to discuss the basic histological and pathological concepts common to the diagnostic cytology of all body systems.

CYT 212. Intro to Cyto Techniques. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
The course covers care and use of the light microscope and histological and cytological specimen preparation techniques and equipment. Topics include laboratory safety, chemical hygiene, universal precautions, and fundamentals of staining and fixation. Upon completion, students should be able to discuss and demonstrate the care and use of the microscope and discuss basic concepts of staining and fixation.

CYT 214. Gynecological Cytology. 14.0 Credits. Class-8.0. Clinical-0.0. Lab-12.0. Work-0.0
This course covers gynecological cytology, including normal anatomy, physiology, histology, cytology, malignancies, and treatment modalities. Topics include hormonal cytology, microorganisms and their manifestations, precursor lesions, and carcinomas. Upon completion, students should be able to demonstrate competence in cytological criteria and gynecological cytology.

CYT 216. Clin & Diag Interp I. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers cytological criteria for representative cytological and histological specimens. Emphasis is placed on the cytology and histology of the female reproductive system. Upon completion, students should be able to demonstrate competence in the application of cytological criteria for gynecological cytology.

CYT 220. Non-Gynecological Cytology. 12.0 Credits. Class-8.0. Clinical-0.0. Lab-8.0. Work-0.0
This course covers non-gynecological cytology and fine needle aspiration biopsy of all body sites. Topics include the anatomy, histology, pathology, and cytopathology of the respiratory system, alimentary canal, body cavities, urinary tract, and breast and aspiration cytology. Upon completion, students should be able to demonstrate competence in the use of cytological criteria as applied to non-gynecological cytology.

CYT 222. Cytopreparation Technique. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the fundamental principles of cytopreparation for histological and cytological specimens. Emphasis is placed on techniques related to cytopreparation. Upon completion, students should be able to demonstrate competence in the various cytopreparation methods.

CYT 224. Gynecological Cyto Clinical Practicum I. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in gynecological cytological procedures. Emphasis is placed on cytological diagnosis by routine screening methods. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 226. Clinical & Diagnostic Interpretation II. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers cytological criteria for representative cytological and histological specimens. Emphasis is placed on the cytology and histology of all areas of non-gynecological cytology and fine needle aspiration biopsy. Upon completion, students should be able to demonstrate competence in the use of cytological criteria for non-gynecological cytology and fine needle aspiration biopsy.

CYT 230. Non-Gynecological Cyto Clinical Practicum. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in non-gynecological cytological procedures. Emphasis is placed on differential diagnosis in non-gynecological cytology. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 232. Clinical Cyto Practicum. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in a variety of clinical settings. Emphasis is placed on teamwork in the clinical setting with utilization of cytdiagnostic and cytopreparation skills. Upon completion, students should be able to function effectively as an entry-level cytotechnologist.

CYT 234. Gynecological Cyto Clinical Pract II. 3.0 Credits. Class-0.0. Clinical-9.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in gynecological cytological procedures. Emphasis is placed on the development of solid working criteria in routine cytology screening. Upon completion, students should be able to demonstrate mastery of all diagnostic skills with a minimum competence of 80%.

CYT 236. Cyto Literature Review. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the development of a scientific, cytology-oriented research paper. Emphasis is placed on the development and presentation of a research proposal utilizing scientific methods, literature reviews, and interpretation of data. Upon completion, students should be able to prepare a scientific research paper based on the scientific method.

CYT 238. Cyt Professional Issues. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the essentials of laboratory organization and management, the fundamentals of laboratory accreditation, and basic principles and applications of immunocytochemistry. Emphasis is placed on discussions of articles from current cytology journals with applications to the practice of cytopathology.
Dance (DAN)

DAN 110. Dance Appreciation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course for non-dance majors surveys diverse dance forms and the religious and cultural values that shape them. Topics include dances from Europe, Africa, Asia, and America. Upon completion, students should be able to demonstrate an understanding of the diverse forms and values that dance embraces. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

DAN 121. Tap Dance I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides the fundamentals of elementary tap dance technique. Emphasis is placed on sounds, rhythms, terminology, and body placement. Upon completion, students should be able to demonstrate significant progress in elementary tap skills.

DAN 122. Tap Dance II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is the second in a series and provides an expansion of elementary tap dance techniques. Emphasis is placed on weight shifts, turns, and more complex rhythm patterns. Upon completion, students should be able to demonstrate a moderate mastery of elementary/intermediate tap dance skills.

DAN 124. Jazz Dance I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides the fundamentals of elementary jazz technique. Emphasis is placed on body placement, stretching, jazz movements, and syncopated rhythms. Upon completion, students should be able to demonstrate significant progress in fundamental jazz dance technique and simple center combinations.

DAN 125. Jazz Dance II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is the second in a series and provides an expansion of elementary/intermediate jazz dance. Emphasis is placed on "Cool Jazz," theatrical jazz styles, and extended sequences of movement (routines). Upon completion, students should be able to demonstrate moderate mastery of elementary/intermediate-level jazz dance and be able to perform routines.

DAN 127. Dance for Musical Theatre. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is designed to teach alignment fundamentals and different styles of jazz, tap, and folk dance used in musical theatre performances. Emphasis is placed on stretching, ballet barre, jazz, tap, and folk dance fundamentals. Upon completion, students should be able to demonstrate proper posture and fundamental techniques of jazz, tap, and folk dance.

DAN 130. Ballet I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the elementary elements of ballet technique. Emphasis is placed on simple positions, body placement, classroom discipline, and the Dalcroze method of counting music. Upon completion, students should be able to recognize the names and rhythms of basic steps and be able to perform those movements at barre and in center.

DAN 131. Ballet II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of elementary ballet techniques. Emphasis is placed on motor skill development, elementary allegro steps, and body positions. Upon completion, students should be able to exhibit moderate technical skill in elementary ballet.

DAN 132. Intermediate Ballet I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the intermediate elements of ballet technique. Emphasis is placed on intermediate steps, memory of set patterns, and progress in skills, especially turns and allegros. Upon completion, students should be able to exhibit significant progress in intermediate ballet technique and the ability to memorize extended combinations of steps.

DAN 133. Intermediate Ballet II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of intermediate ballet technique. Emphasis is placed on progress in intermediate skills, memory and execution of steps, especially Grande Allegro. Upon completion, students should be able to exhibit significant achievement in intermediate ballet technique and the ability to quickly learn and retain combinations.

DAN 134. Ballet Pointe Work. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the fundamentals of pointe work. Emphasis is placed on relevé, piqués (pose), body placement, and foot strengthening. Upon completion, students should be able to execute simple ballet steps on pointe at the barre and in center.

DAN 140. Modern Dance I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the elementary elements of modern dance technique. Emphasis is placed on floor, barre, and center floor exercises. Upon completion, students should be able to exhibit a basic understanding and skill in performing elementary modern dance technique.

DAN 141. Modern Dance II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of elementary modern dance technique. Emphasis is placed on motor skill development and simple combinations in center floor. Upon completion, students should be able to exhibit moderate technical skill in elementary modern dance technique.

DAN 142. Intermediate Modern Dance I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces intermediate modern dance technique. Emphasis is placed on kinesthesia (body energy) and intermediate movements including turns, spirals, and jumps. Upon completion, students should be able to demonstrate significant progress in intermediate technique and extended movement sequences.

DAN 143. Intermediate Modern Dance II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of intermediate modern dance technique. Emphasis is placed on progress in intermediate skills, musical phrasing, and introduction to selections of modern dance repertoire. Upon completion, students should be able to demonstrate significant achievement in intermediate technique and to begin to practice selections of its repertoire.

DAN 211. Dance History I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth study of world dance from pre-history to 1800. Emphasis is placed on examining the dance and dancers of diverse cultures including Africa, Asia, and Europe. Upon completion, students should be able to analyze the common need to dance and the forms, religions, and cultural values it embodies. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/Fine arts.
DAN 212. Dance History II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth study of world dance from 1800 to the present. Emphasis is placed on western theatrical dance (ballet, modern dance, tap, and jazz) and the personalities that shaped it. Upon completion, students should be able to analyze culturally diverse dance forms and their cross-Pollination which have produced the "pan world dance of today." This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/Fine arts.

DAN 221. Advanced Modern Dance I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the advanced elements of modern dance technique. Emphasis is placed on mastery and quality of technical skills, and spatial divisions. Upon completion, students should be able to demonstrate significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 222. Advanced Modern Dance II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of advanced modern dance technique. Emphasis is placed on mastery and quality of technical skills and execution of complicated movement variations in extended sequence. Upon completion, students should be able to demonstrate significant achievement in modern dance skills and the ability to perform modern dance repertoire.

DAN 225. Choreography I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the fundamental techniques of modern dance choreography. Emphasis is placed on improvisation and development of movement phrases. Upon completion, students should be able to create simple movements, improvise upon them, and develop longer movement phrases to create short dances.

DAN 226. Choreography II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the elements of dance (time, space, form) and structural forms as used to choreograph. Emphasis is placed on the use of design, dynamics, rhythm, motivation, and musical forms to create dances. Upon completion, students should be able to utilize the elements of time, space, and form and form manipulation to choreograph and rehearse a group dance.

DAN 236. Advanced Ballet I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the advanced element of ballet technique. Emphasis is placed on refinement of all technical skills, learning advanced movements, pointe (female) and big jumps (male). Upon completion, students should be able to exhibit significant progress in the execution of all movements and to demonstrate a sense of quality in them.

DAN 237. Advanced Ballet II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is the second in a series of advanced ballet technique. Emphasis is placed on mastery and quality of all skills, refinement of movements, pointe (female) and big jumps (male). Upon completion, students should be able to demonstrate significant achievement in all ballet skills and the ability to perform ballet repertoire.

DAN 262. Dance Performance. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes audition, casting, rehearsal, and video performance of a new ballet. Emphasis is placed on universal rehearsal techniques, improvement of dance techniques, teamwork, and performance of new choreography. Upon completion, students should be able to demonstrate through video performance a basic knowledge of the creation of a new ballet.

DAN 264. Dance Production. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course covers creation, rehearsal, and performance, before a live audience, of a new or reconstructed work by faculty, guest artist, or repertoire. Emphasis is placed on movement, memory skills, role development, accepted professional behavior, and ability to project the choreographer's intent. Upon completion, students should be able to demonstrate through performance a basic knowledge of the artistic and technical aspects of performing before a live audience.

Database Management Technology (DBA)

DBA 110. Database Concepts. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

DBA 112. Database Utilization. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic database functions and uses. Emphasis is placed on database manipulation with queries, reports, forms, and some table creation. Upon completion, students should be able to enter and manipulate data from the end user mode.

DBA 115. Database Applications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens, and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

DBA 120. Database Programming I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to develop SQL programming proficiency. Emphasis is placed on data definition, data manipulation, and data control statements as well as on report generation. Upon completion, students should be able to write programs which create, update, and produce reports.
Prerequisites: Take DBA 110, DBA 115 or CTI 110 with a minimum grade of C

DBA 210. Database Administration. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers database administration issues and distributed database concepts. Topics include database administrator (DBA) goals and functions, backup and recovery, standards and procedures, training, and database security and performance evaluations. Upon completion, students should be able to produce functional DBA documentation and administer a database.
DBA 220. Oracle Database Programming II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop an Oracle DBMS application which includes a GUI front-end and report generation.

DBA 221. SQL Server Database Programming II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a SQL Server DBMS application which includes a GUI front-end and report generation.

DBA 222. DB2 Database Programming II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a DB2 DBMS application which includes a GUI front-end and report generation.

DBA 223. MySQL Database Programming II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a MySQL DBMS application which includes a GUI front-end and report generation.

DBA 224. SAS Database Programming II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a SAS DBMS application which includes a GUI front-end and report generation.

DBA 230. Databases in Corporate Environments. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers database systems as they relate to the corporate environment. Topics include knowledge-based, decision-support, and expert systems; database choices; data warehousing; and corporate structure. Upon completion, students should be able to analyze and recommend database systems needed by a corporation.

DBA 240. Database Analysis and Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is an exploration of the established and evolving methodologies for the analysis, design, and development of a database system. Emphasis is placed on business data characteristics and usage, managing database projects, prototyping and modeling, and CASE tools. Upon completion, students should be able to analyze, develop, and validate a database implementation plan.

DBA 260. Oracle Database Management System Admin. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines advanced Oracle database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.
Prerequisites: Take DBA 210 with a minimum grade of C

DBA 261. SQL Server Database Management System Administration. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines advanced SQL Server database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.
Prerequisites: Take DBA 210 with a minimum grade of C

DBA 262. DB2 Database Management System Admin. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines advanced DB2 database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.

DBA 263. MySQL Database Management System Admin. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines advanced MySQL database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.

DBA 264. SAS Database Management System Admin. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines advanced SAS database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.

DBA 270. Oracle Performance Tuning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers Oracle performance tuning concepts and techniques. Topics include database tuning and Oracle performance tools. Upon completion, students should be able to configure and diagnose an Oracle database for optimal performance.

DBA 271. SQL Server Performance Tuning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers SQL Server performance tuning concepts and techniques. Topics include database tuning and SQL Server performance tools. Upon completion, students should be able to configure and diagnose an SQL Server database for optimal performance.

DBA 272. DB2 Performance Tuning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers DB2 performance tuning concepts and techniques. Topics include database tuning and DB2 performance tools. Upon completion, students should be able to configure and diagnose a DB2 database for optimal performance.

DBA 273. MySQL Performance Tuning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers MySQL performance tuning concepts and techniques. Topics include database tuning and MySQL performance tools. Upon completion, students should be able to configure and diagnose a MySQL database for optimal performance.
Central Piedmont Community College

**DBA 274. SAS Performance Tuning. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers SAS performance tuning concepts and techniques. Topics include database tuning and SAS performance tools. Upon completion, students should be able to configure and diagnose a SAS database for optimal performance.

**DBA 285. Data Warehousing and Mining. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces data warehousing and data mining techniques. Emphasis is placed on data warehouse design, data transference, data cleansing, retrieval algorithms, and mining techniques. Upon completion, students should be able to create, populate, and mine a data warehouse.

**DBA 289. Database Project. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant database systems project with minimal instructor support. Emphasis is placed on written and verbal communication skills, documentation, presentation, and user training. Upon completion, students should be able to present an operational database system which they have created.

**Dental (DEN)**

**DEN 100. Basic Orofacial Anatomy. 2.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting. This course is restricted to diploma and/or certificate programs.
Prerequisites: Take BIO 163
Corequisites: DEN 101

**DEN 101. Preclinical Procedures. 7.0 Credits.** Class-4.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. This course is restricted to diploma and/or certificate programs.
Prerequisites: Take ENG 111 COM 231

**DEN 102. Dental Materials. 5.0 Credits.** Class-3.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This course is restricted to diploma and/or certificate programs.
Prerequisites: Take DEN 101 DEN 100 DEN 111 with a minimum grade of C
Corequisites: DEN 104

**DEN 103. Dental Health Education. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. This course is restricted to diploma and/or certificate programs.
Prerequisites:
- Take DEN 100 with a minimum grade of C

**DEN 104. Dental Health Education. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. This course is restricted to diploma and/or certificate programs.
Prerequisites: Take DEN 101 DEN 111 DEN 112 DEN 100 with a minimum grade of C

**DEN 105. Practice Management. 2.0 Credits.** Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. This course is restricted to diploma and/or certificate programs.

**DEN 106. Clinical Practice I. 5.0 Credits.** Class-1.0. Clinical-12.0. Lab-0.0. Work-0.0
This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. This course is restricted to diploma and/or certificate programs.
Prerequisites: Take DEN 100 DEN 102 DEN 103 DEN 112 DEN 104 DEN 105 DEN 111 with a minimum grade of C

**DEN 107. Clinical Practice II. 5.0 Credits.** Class-1.0. Clinical-12.0. Lab-0.0. Work-0.0
This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. This course is restricted to diploma and/or certificate programs.

**DEN 110. Orofacial Anatomy. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.
DEN 111. Infection/Hazard Control. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 112. Dental Radiography. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

DEN 120. Dental Hygiene Preclinic Lecture. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces preoperative and clinical dental hygiene concepts. Emphasis is placed on the assessment phase of patient care as well as the theory of basic dental hygiene instrumentation. Upon completion, students should be able to collect and evaluate patient data at a basic level and demonstrate knowledge of dental hygiene instrumentation.

DEN 121. Dental Hygiene Preclinical Lab. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

DEN 123. Nutrition/Dental Health. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of the food pyramid, nutrient functions, Recommended Daily Allowances, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

DEN 124. Periodontology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.
Prerequisites: Take DEN 110
Take BIO 175 or BIO 275 with a minimum grade of C

DEN 125. Dental Office Emergencies. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess and manage various dental office emergencies and activate advanced medical support when indicated.

DEN 130. Dental Hygiene Theory I. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/ removal, instrument sharpening, patient education, fluorides, planning for dental hygiene treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

DEN 131. Dental Hygiene Clinic I. 3.0 Credits. Class-0.0. Clinical-9.0. Lab-0.0. Work-0.0
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment. Prerequisites: Take DEN 121
Take DEN 110 DEN 111 DEN 112 DEN 120 with a minimum grade of C
Corequisites: DEN 130

DEN 140. Dental Hygiene Theory II. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a continuation of the development, theory, and practice of patient care. Topics include modification of treatment for special needs patients, advanced radiographic interpretation, and ergonomics. Upon completion, students should be able to differentiate necessary treatment modifications, effective ergonomic principles, and radiographic abnormalities.

DEN 141. Dental Hygiene Clinic II. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 220. Dental Hygiene Theory III. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of the management of dental office emergencies. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 110. Infection/Hazard Control. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.
DEN 222. General & Oral Pathology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

DEN 223. Dental Pharmacology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.
Prerequisites: Take DEN 125
Corequisites: Take One: BIO 163, BIO 165, or BIO 168

DEN 224. Materials and Procedures. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.
Prerequisites: Take DEN 111
Take DEN 121 with a minimum grade of C

DEN 230. Dental Hygiene Theory IV. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to increase knowledge of the profession. Emphasis is placed on dental specialties and completion of a case presentation. Upon completion, students should be able to demonstrate knowledge of various disciplines of dentistry and principles of case presentations.

DEN 231. Dental Hygiene Clinic IV. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN 232. Community Dental Health. 3.0 Credits. Class-2.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.
Prerequisites: Take DEN 123 DEN 130 DEN 131 with a minimum grade of C

DEN 233. Professional Development. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, resumes, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.

DES 115. Color Theory. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the element of color as a major design factor. Emphasis is placed on the physical, psychological, and other implications of color in design. Upon completion, students should be able to demonstrate knowledge of color and its effects on the human environment.

DES 125. Graphic Presentation I. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.

DES 126. Graphic Presentation II. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides a more in-depth study of graphic techniques. Topics include extensive wet and dry media experience and advanced measured perspective techniques. Upon completion, students should be able to illustrate interiors and other elements.

DES 130. Macintosh Applications/Interior Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces Macintosh applications using current appropriate software. Emphasis is placed on basic operation of the Macintosh computer in interior design applications. Upon completion, students should be able to select operations, print documents, and utilize applications to create documents for interior design.

DES 135. Principles and Elements of Design I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

DES 136. Principles and Elements of Design II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investigation of the psychology of color. Upon completion, students should be able to originate a color program for interiors.
College-Level Courses

DES 210. Business Practices for Interior Design. 2.0 Credits.
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.
Prerequisites: Take DES 220

DES 220. Prin of Interior Design. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.
Prerequisites:
• Take DES 135
• Take ARC 111
• Take DES 125

DES 225. Textiles/Fabrics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.

DES 230. Residential Design I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to complete scaled floorplans, elevations, specifications, color schemes and fabrics, and finishes and furniture selection.
Prerequisites: Take DES 220 ARC 120

DES 231. Residential Design II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floorplan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.
Prerequisites: Take DES 230
Take ARC 114

DES 235. Products. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.
Prerequisites: Take DES 135

DES 240. Commercial/Contract Design I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.
Prerequisites: Take DES 220
Take ARC 120

DES 241. Commercial/Contract Design II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements, codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.
Prerequisites: Take DES 240
Take ARC 114

DES 242. Kitchen and Bath Design. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the fundamentals of kitchen and bath design. Emphasis is placed on the principles and elements of kitchen and bath design, analysis of client needs, specifying products, and drafting design solutions. Upon completion, students should be able to produce basic kitchen and bath design utilizing standards established by the National Kitchen and Bath Association (NKBA).
Prerequisites: Take DES 220

DES 245. Sales and Marketing for Interior Design. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces retail/wholesale sales and marketing concepts, product distribution, and terminology for the interior design profession. Topics include current retail/wholesale marketing techniques, sales terminology, acceptable business practices, and basic retail/wholesale computations. Upon completion, students should be able to demonstrate knowledge of specific design marketing and sales organizations and techniques and compute basic mark-ups and mark-downs.

DES 250. Store Planning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces theoretical and practical concepts in store design based on current retail merchandising methods. Topics include retail display, lighting, selection of fixtures, and formulas for successful space planning and allocation. Upon completion, students should be able to plan a store interior given established requirements for retail lighting, fixtures, and visual merchandising.
Prerequisites:
• Take ARC 111 ARC 120 DES 125 DES 135 DES 240

DES 255. History of Interiors and Furnishings I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.
DES 257. History of American Homes. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of American architectural styles from Medieval frame dwellings through the International style. Emphasis is placed on vocabulary, characteristics of architectural styles, and chronology as well as research of a historic home. Upon completion, students should be able to identify and use correct terminology regarding the history of American homes.

DES 260. Materials Calculation / Interior Design. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes the study of calculations for square footage, square yardage, and cut-length yardage. Emphasis is placed on the development of workable formulas, worksheets, and order forms that can be used in an interior design business. Upon completion, students should be able to produce electronic worksheets and order forms for calculating window treatments, wall coverings, and floor coverings for a given space.

DES 265. Lighting/Interior Design. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces theory and contemporary concepts in lighting. Topics include light levels, light quality, lamps and fixtures, and their use in interior design. Upon completion, students should be able to determine light levels and requirements based on national standards and select luminaries for specific light qualities. Prerequisites: Take ARC 111 ARC 133

DES 265. Furniture Design & Construction. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces contemporary furniture design and construction techniques used in custom and handmade furniture building. Topics include design and manufacturing processes and materials selection for handmade and production, case goods, and upholstery manufacturing. Upon completion, students should be able to design and describe manufacturing processes used in both case goods and upholstered furniture manufacturing. Prerequisites: Take ARC 120 DES 220

DES 280. Codes & Standards/Interior Design. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces institutional and residential building codes as they relate to interior design. Topics include state and federal codes and standards related to physically disadvantaged access, fire codes, space allocation codes, and bathroom facility codes. Upon completion, students should be able to research and interpret state and federal building codes. Prerequisites: Take ARC 111 ARC 133

DES 285. Capstone/Interior Design. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

Design: Drafting (DDF)

DDF 221. Design Drafting Project. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course incorporates ideas from concept to final design. Topics include reverse engineering, design for manufacturability, and mock-up construction. Upon completion, students should be able to generate working drawings and models based on physical design parameters. Prerequisites: Take DFT 112 with a minimum grade of D

DDF 252. Advanced Solid Modeling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces advanced solid modeling and design software. Topics include design principles, design constraints, work planes, view generation, and model sharing and rendering. Upon completion, students should be able to create advanced solid models.

Developmental Disabilities (DDT)

DDT 110. Developmental Disabilities. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course identifies the characteristics and causes of various disabilities. Topics include history of service provision, human rights, legislation and litigation, advocacy, and accessing support services. Upon completion, students should be able to demonstrate an understanding of current and historical developmental disability definitions and support systems used throughout the life span.

DDT 120. Teaching Developmental Disabled. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers teaching modalities which enhance learning among people with developmental disabilities. Topics include assessment, support strategies, writing behavioral strategies, teaching methods, and documentation. Upon completion, students should be able to demonstrate competence in individual program plan development and implementation. This course is a unique requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DDT 210. DDT Health Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the health and medical aspects of assisting people with developmental disabilities. Topics include universal precautions, medication, wellness, nutrition, human sexuality, and accessing medical services. Upon completion, students should be able to identify and implement strategies to promote wellness and manage chronic health conditions. Upon completion, students should be able to identify and implement strategies for the main- tenance, prevention, and treatment of predominant health conditions affecting the developmentally disabled. This course is a unique concentration requirement of the developmental disabilities concentration in the human services technology program.

DDT 220. Program Planning Process. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the individual program planning process used in services for people with developmental disabilities. Topics include basic components and benefits of the process, the effect of values on outcomes, and group problem-solving methods. Upon completion, students should be able to demonstrate an understanding of effective group process in program planning and the individual roles of team members. This course is a unique requirement of the Developmental Disabilities concentration in the Human Services Technology program.
DDT 230. Supported Employment. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concept of supported employment and the action steps needed to assist individuals with disabilities to participate in the world of work. Topics include a history of vocational services, supported employment values, organizational marketing, consumer assessment, job development, employment selection, job site training and long term supports. Upon completion, students should be able to develop a customer profile, a marketing plan, and assist individuals with disabilities to obtain and maintain employment. This course is a unique concentration requirement of the Developmental Disabilities concentration in the Human Services Technology program.

DDT 240. Aging Lifelong Disability. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to address issues facing individuals with developmental disabilities who are aging. Emphasis is placed on techniques to develop coalitions between the aging network and service providers, health and wellness strategies, later life planning, and community inclusion. Upon completion, students should be able to identify formal and informal supports and strategies for community inclusion for adults aging with lifelong disabilities.

Developmental Mathematics (DMA)

Developmental Reading/English (DRE)

Digital Effects and Animation (DEA)

DEA 111. Introduction to DEAT. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is an overview of the digital effects and animation technology field from the most simple processes to the most complex. Topics covered include digitizing existing images, creating digital images, manipulation of images and various forms of computer animation. Upon completion, students should be able to demonstrate a vocabulary of the digital effects and animation field and a knowledge of outstanding examples of work in the field.

Digital Media Technology (DME)

DME 110. Introduction to Digital Media. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to key concepts, technologies, and issues related to digital media. Topics include emerging standards, key technologies and related design issues, terminology, media formats, career paths, and ethical issues. Upon completion, students should be able to demonstrate the various media formats that are used in digital media technology.

DME 210. User Interface Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers current design approaches and emerging standards related to the design and development of user interfaces. Emphasis is placed on conducting research, and analyzing and reviewing current practices in effective interface design. Upon completion, students should be able to intelligently discuss and evaluate new and existing digital media products in terms of the user interface.

Drafting (DFT)

DFT 112. Technical Drafting II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.
Prerequisites: Take DFT 151

DFT 121. Introduction to GD&T. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.
Prerequisites: Take DFT 111 DFT 3404 or EGR 120

DFT 151. CAD I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152. CAD II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.
Prerequisites: Take DFT 151 or DFT 151T

DFT 153. CAD III. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.
Prerequisites: Take DFT 152

DFT 154. Intro to Solid Modeling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models, and creation of multiview drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multi-view drawing.
DFT 170. Engineering Graphics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Drama/Theatre (DRA)

DRA 111. Theatre Appreciation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience’s appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate effective theatrical speech.

DRA 112. Literature of the Theatre. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of dramatic works from the classical greek through the present. Emphasis is placed on the language of drama, critical theory, and background as well as on play reading and analysis. Upon completion, students should be able to articulate, orally and in writing, their appreciation and understanding of dramatic works. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/fine arts.

DRA 120. Voice for Performance. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides guided practice in the proper production of speech for the theatre. Emphasis is placed on improving speech, including breathing, articulation, pronunciation, and other vocal variables. Upon completion, students should be able to demonstrate effective theatrical speech.

DRA 122. Oral Interpretation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the dramatistic study of literature through performance. Emphasis is placed on analysis and performance of poetry, drama, and prose fiction. Upon completion, students should be able to embody and discuss critically the speakers inherent in literature. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/fine arts.

DRA 130. Acting I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an applied study of the actor’s craft. Topics include role analysis, training the voice, and body concentration, discipline, and self-evaluation. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 131. Acting II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides additional hands-on practice in the actor’s craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 132. Stage Movement. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an applied study of selected principles of stage movement for actors. Topics include improvisation, mime, stage combat, clowning, choreography, and masks. Upon completion, students should be able to focus properly on stage, to create characters, and to improvise scenes, perform mimes, fight, clown, juggle, and waltz. This course has been approved to satisfy the Comprehensive Articulation Agreement as a pre-major and/or elective requirement.

DRA 135. Acting for the Camera I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an applied study of the camera actor’s craft. Topics include commercial, dramatic, and print performance styles. Upon completion, students should be able to explore their creativity in on-camera performance. This course has been approved to satisfy the Comprehensive Articulation Agreement as a pre-major and/or elective course requirement.

DRA 136. Acting for the Camera II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides additional hands-on study of the camera actor’s craft. Emphasis is placed on more advanced camera acting theories, auditioning techniques, daytime drama, feature film, and print advertisement performance styles. Upon completion, students should be able to explore their creativity in on-camera performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirements.

DRA 140. Stagecraft I. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the theory and basic construction of stage scenery and properties. Topics include stage carpentry, scene painting, stage electrics, properties, and backstage organization. Upon completion, students should be able to pursue vocational and avocational roles in technical theatre. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 141. Stagecraft II. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides additional hands-on practice in the elements of stagecraft. Emphasis is placed on the design and implementation of the arts and crafts of technical theatre. Upon completion, students should be able to pursue vocational or avocational roles in technical theatre. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 142. Costuming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the techniques of costume construction and crafts processes. Emphasis is placed on learning costuming techniques, using equipment and materials, and finishing production-appropriate costumes. Upon completion, students should be able to demonstrate an understanding of pattern drafting, construction techniques, and costume fitting procedures.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Class</th>
<th>Laboratory</th>
<th>Work</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 145</td>
<td>Stage Make-Up</td>
<td>2.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course covers the research, design, selection of materials, and application of stage make-up, prosthetics, wigs, and hairpieces. Emphasis is placed on the development of techniques, style, and presentation of the finished make-up. Upon completion, students should be able to create and apply make-up, prosthetics, and hairpieces. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 147</td>
<td>Sound Technology</td>
<td>3.0</td>
<td>3.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course provides an introduction to the analysis of sound equipment technology and its operation and uses on stage. Emphasis is placed on assessing sound needs and on installing, running, and maintaining equipment. Upon completion, students should be able to demonstrate skills as a sound environment designer and technician. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 151</td>
<td>Mechanics and Maintenance</td>
<td>1.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course is designed to analyze the internal workings and maintenance of a theatrical facility. Emphasis is placed on the mechanics and maintenance of rigging, counter-weight systems, hydraulics, electronics, and shop equipment. Upon completion, students should be able to demonstrate an understanding of the proper operation of backstage systems. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 170</td>
<td>Play Production I</td>
<td>3.0</td>
<td>3.0</td>
<td>9.0</td>
<td>0.0</td>
<td>This course provides an introduced laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 171</td>
<td>Play Production II</td>
<td>3.0</td>
<td>2.0</td>
<td>9.0</td>
<td>0.0</td>
<td>This course provides an introduced laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 175</td>
<td>Teleplay Production I</td>
<td>3.0</td>
<td>2.0</td>
<td>9.0</td>
<td>0.0</td>
<td>This course provides an introduced laboratory study of the processes involved in production of a dramatic television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing dramatic television programming. Upon completion, students should be able to participate in an assigned position with a college dramatic television production.</td>
</tr>
<tr>
<td>DRA 176</td>
<td>Teleplay Production II</td>
<td>3.0</td>
<td>0.0</td>
<td>9.0</td>
<td>0.0</td>
<td>This course provides an applied laboratory study of the processes involved in production of a sit-com television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing sit-com television programming. Upon completion, students should be able to participate in an assigned position with a college sit-com television production.</td>
</tr>
<tr>
<td>DRA 211</td>
<td>Theatre History I</td>
<td>3.0</td>
<td>3.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.</td>
</tr>
<tr>
<td>DRA 212</td>
<td>Theatre History II</td>
<td>3.0</td>
<td>3.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.</td>
</tr>
<tr>
<td>DRA 240</td>
<td>Lighting for the Theatre</td>
<td>3.0</td>
<td>2.0</td>
<td>0.0</td>
<td>0.0</td>
<td>This course is an applied study of theatre lighting and is designed to train theatre technicians. Emphasis is placed on lighting technology including the mechanics of lighting and light control equipment by practical work with lighting equipment. Upon completion, students should be able to demonstrate competence with lighting equipment. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 241</td>
<td>Lighting Design</td>
<td>3.0</td>
<td>2.0</td>
<td>2.0</td>
<td>0.0</td>
<td>This course introduces the processes of conceptualizing and developing a lighting design for the theatre and other media. Emphasis is placed on equipment, technology, and the development of a light plot. Upon completion, students should be able to understand the process of creating a light plot and solving the production problems relative to lighting. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
<tr>
<td>DRA 243</td>
<td>Scene Design</td>
<td>3.0</td>
<td>2.0</td>
<td>2.0</td>
<td>0.0</td>
<td>This course covers the analysis, research, design, and problem solving related to scene design. Emphasis is placed on director/designer communication, conceiving, researching, rendering, and modeling of designs. Upon completion, students should be able to demonstrate skills in communication, design process, rendering, and modeling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.</td>
</tr>
</tbody>
</table>
DRA 245. Drafting and Scenography. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes an analysis of drafting techniques, scenery design problems, design practice, model and rendering preparation, and working drawings. Topics include discussion of building materials, construction techniques, painting and finish techniques, and the creation of working drawings and construction documentation. Upon completion, students should be able to demonstrate competence in design, drafting, construction, and problem solving. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 251. Production Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an analysis of staging, building and personnel resources, communication, budgeting, and safety in play production and other entertainment media. Emphasis is placed on organization, communication, and safety in production. Upon completion, students should be able to understand the important boundaries of authority for the production manager. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 270. Play Production III. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 271. Play Production IV. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

DRA 275. Teleplay Production III. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in production of an action television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing action television programming. Upon completion, students should be able to participate in an assigned position with a college action television production.

DRA 276. Teleplay Production IV. 3.0 Credits. Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in production of a variety television program. Emphasis is placed on the fundamental practices, principles, and techniques associated with producing variety television programming. Upon completion, students should be able to participate in an assigned position with a college variety television production.

Economics (ECO)

ECO 151. Survey of Economics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors. Students needing advancement studies courses should complete those prior to taking this class. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in social/behavioral sciences.
Prerequisites:
• Take MAT 080 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 271 MAT 272 MAT 273 or MAT 285 with a minimum grade of C
• Take RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

ECO 251. Principles of Microeconomics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces economic analysis of individuals, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. Students needing advancement studies courses should complete those prior to taking this class. Satisfy the comprehensive articulation agreement general education core requirement in social/behavioral sciences.
Prerequisites:
• Take MAT 080 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 MAT 285 or DMA 080 with a minimum grade of C
• Take RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C
College-Level Courses

**ECO 252. Principles of Macroeconomics. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. Students needing advancement studies courses should complete those prior to taking this class. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in social/behavioral sciences.
Prerequisites:
- Take MAT 080 MAT 115 MAT 121 MAT 122 MAT 140 MAT 155 MAT 161 MAT 167 MAT 171 MAT 172 MAT 175 MAT 223 MAT 263 MAT 271 MAT 272 MAT 273 MAT 285 or DMA 080 with a minimum grade of C
- Take RED 090 EFL 112 ENG 090 ENG 095 ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

**EDU 119. Introduction to Early Childhood Education. 4.0 Credits.** Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children. This course is also available through the Virtual Learning Community (VLC).
Prerequisites: Complete one of the following options:
- Take ENG 111 with a minimum grade of C
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

**EDU 144. Child Development I. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.
Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

**EDU 145. Child Development II. 3.0 Credits.** Class-3.0. Clinical-0.0.
This course introduces the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.
Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 EDU 144
- Take ENG 085 EDU 144

**EDU 146. Child Guidance. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors.
Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C
EDU 151. Creative Activities. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0 This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art, music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments. Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

Corequisites: EDU 151A

EDU 151A. Creative Activities Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0 This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities. Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

Corequisites: Take EDU 151

EDU 153. Health, Safety and Nutrition. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0 This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations. Prerequisites: Complete one of the following options:
- ENG 080 and RED 080
- ENG 085

EDU 154. Social/Emotion/Behavior Development. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0 This course covers the emotional/social development of children and the causes, expressions, prevention and management of challenging behaviors in all children. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental concerns, risk factors, and intervention strategies. Upon completion, students should be able to identify factors influencing emotional/social development, utilizing screening measures, and designing positive behavioral supports. Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 EDU 144 EDU 145 EDU 146
- Take ENG 080 RED 080 PSY 244 PSY 245 EDU 146
- Take ENG 085 EDU 144 EDU 145 EDU 146
- Take ENG 085 PSY 244 PSY 245 EDU 146

EDU 158. Healthy Lifestyles-Youth. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0 This course introduces the topics of health, safety, nutrition, physical activities and environments for the school-age child/youth that promote development, fitness and healthy lifestyles. Topics include the use of physical and nutritional/cooking activities (indoors/outsdoors, teacher-directed/youth-directed) appropriate for youth developing typically/atypically; safe/healthy menu planning; safe/healthy environmental design, assessment and supervision. Upon completion, students should be able to plan/facilitate safe/healthy physical and nutritional/cooking activities, discuss safety policies/regulations and identify health/safety/nutritional needs of youth. Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C

EDU 163. Classroom Management and Instruction. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0 This course covers management and instructional techniques with school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and instructional strategies that enhance the teaching/learning process and promote students' academic success.

EDU 184. Early Childhood Introductory Practicum. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0 This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children; and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits. Prerequisites: Complete one of the following options:
- Take ENG 080, RED 080, and EDU 119
- Take ENG 085 and EDU 119

EDU 188. Issues in Early Childhood Education. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0 This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education. Prerequisites: Complete one of the following options:
- Take ENG 080 RED 080 with a minimum grade of C
- Take ENG 085 with a minimum grade of C
- Take ENG 111 with a minimum grade of C
**EDU 214. Early Childhood Intermediate Practicum. 4.0 Credits.**
Class-1.0. Clinical-0.0. Lab-9.0. Work-0.0
This course is designed to allow students to apply skills in a three star (minimum) or NAECY accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting with the implementation of developmentally appropriate activities and environments for all children; modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.
Prerequisites: Complete one of the following options:
- Take EDU 119 EDU 144 EDU 146 ENG 095 EDU 151 EDU 151A with a minimum grade of C
- Take EDU 119 EDU 144 EDU 146 ENG 095 EDU 251 EDU 251A with a minimum grade of C
- Take EDU 119 EDU 144 EDU 146 ENG 095 EDU 280 EDU 280A with a minimum grade of C
- Take EDU 119 EDU 144 EDU 146 ENG 090 RED 090 EDU 151 EDU 151A with a minimum grade of C
- Take EDU 119 EDU 144 EDU 146 ENG 090 RED 090 EDU 251 EDU 251A with a minimum grade of C
- Take EDU 119 EDU 144 EDU 146 ENG 090 RED 090 EDU 280 EDU 280A with a minimum grade of C

**EDU 216. Foundations of Education. 4.0 Credits.**
Class-4.0. Lab-0.0. Work-0.0
This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational, structural, legal, and financial issues, and experiences in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education.

**EDU 221. Children With Exceptionalities. 3.0 Credits.**
Class-3.0. Lab-0.0. Work-0.0
This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice.
Prerequisites: Take one set:
- ENG 090, RED 090, EDU 144, and EDU 145
- ENG 090, RED 090, PSY 244, and PSY 245
- ENG 095, EDU 144, and EDU 145
- ENG 095, PSY 244, and PSY 245

**EDU 234. Infants, Toddlers, & Twos. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/twos development, plan/select activities/materials, and partner with diverse families.
Prerequisites: Complete one of the following options:
- Take ENG 090 RED 090 EDU 119
- Take ENG 095 EDU 119
- Take EDU 144 with a minimum grade of C

**EDU 234A. Infants/Toddlers/Twos Lab. 1.0 Credit.**
Class-0.0. Lab-2.0. Work-0.0
This course focuses on practical applications that support the healthy development of very young children by applying principles of quality inclusive early care and education. Emphasis is placed on recognizing the interrelated factors that impact children’s development through planning, evaluating and adapting quality environments, including activities and adult/child interactions. Upon completion, students should be able to demonstrate the ability to engage in respectful, responsive care that meets the unique needs of individual children/families.
Prerequisites: Complete one of the following options:
- Take ENG 090 RED 090 with a minimum grade of C
- Take ENG 095 with a minimum grade of C

Corequisites: Take EDU 234

**EDU 235. School-Age Development and Programs. 3.0 Credits.**
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes developmentally appropriate practices in group settings for school-age children. Emphasis is placed on principles of development, environmental planning, and positive guidance techniques. Upon completion, students should be able to discuss developmental principles for all children ages five to twelve and plan and implement developmentally-appropriate activities.
Prerequisites: Take one set:
- ENG 090 and RED 090
- ENG 095

**EDU 241. Adult-Child Relations. 2.0 Credits.**
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers self-concept and effective and active listening skills in positive one-to-one interactions with individuals and groups of children. Emphasis is placed on self-concept development and effective communication techniques used with children. Upon completion, students should be able to identify principles underlying self-concept and demonstrate effective listening and communication skills used by adults with children.
EDU 243. Learning Theory. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning and discuss the relationship between different types of intelligence to learning motivation.

EDU 244. Human Growth and Development. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces lateral entry teachers to theories and ages and stages related to human growth and development from birth through adolescence. Emphasis is placed on development through the stages of a child's life in the areas of physical, emotional, social, intellectual, and moral development. Upon completion, students should be able to identify and describe milestones of each stage in all areas of development and discuss factors that influence growth.

EDU 251. Exploration Activities. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, discover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.
Prerequisites: Complete one of the following options:
• ENG 090 and RED 090
• ENG 095
Corequisites: EDU 251A

EDU 251A. Exploration Activities Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.
Prerequisites: Complete one of the following options:
• ENG 090 and RED 090
• ENG 095
Corequisites: Take EDU 251

EDU 254. Music and Movement for Children. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the use of music and creative movement for children. Topics include a general survey of the basic elements of music and planning, designing, and implementing music and movement experiences for creative learning. Upon completion, students should be able to use voice and various musical instruments to provide musical and movement activities for children.
Prerequisites: Complete one of the following options:
• Take ENG 090 RED 090 with a minimum grade of C
• Take ENG 095 with a minimum grade of C

EDU 259. Curriculum Planning. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to focus on curriculum planning for three to five year olds. Topics include philosophy, curriculum models, indoor and outdoor environments, scheduling, authentic assessment, and planning developmentally appropriate experiences. Upon completion, students should be able to evaluate children's development, critique curriculum, plan for individual and group needs, and assess and create quality environments.
Prerequisites: Complete one of the following options:
• ENG 090, RED 090, and EDU 119
• ENG 095 and EDU 119

EDU 261. Early Childhood Administration I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces principles of basic programming and staffing, budgeting/financial management and marketing, and rules and regulations of diverse early childhood programs. Topics include program structure and philosophy, standards of NC child care programs, finance, funding resources, and staff and organizational management. Upon completion, students should be able to develop components of program/ personnel handbooks, a program budget, and demonstrate knowledge of fundamental marketing strategies and NC standards.

EDU 262. Early Childhood Administration II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.

EDU 263. School-Age Program Administration. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the methods and procedures for development and administration of school-age programs in the public or proprietary setting. Emphasis is placed on the construction and organization of the physical environment. Upon completion, students should be able to plan, develop and administer a quality school-age program.

EDU 271. Educational Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the use of technology to enhance teaching and learning in all educational settings. Topics include technology concepts, instructional strategies, materials and adaptive technology for children with exceptionalities, facilitation of assessment/evaluation, and ethical issues surrounding the use of technology. Upon completion, students should be able to apply technology enhanced instructional strategies, use a variety of technology resources and demonstrate appropriate technology skills in educational environments.
Prerequisites: Complete one of the following options:
• Take ENG 090 RED 090 EDU 221 with a minimum grade of C
• Take ENG 095 EDU 221 with a minimum grade of C
EDU 280. Language and Literacy Experiences. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to expand students' understanding of children's language and literacy development and provides strategies for enhancing language/literacy experiences in an enriched environment. Topics include selection of diverse literature and interactive media, the integration of literacy concepts throughout the curriculum, appropriate observations/assessments and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate and diverse language/literacy experiences.
Prerequisites: Complete one of the following options:
- ENG 090 and RED 090
- ENG 095
Corequisites: EDU 280A

EDU 280A. Literacy Experiences Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a laboratory component to complement EDU 280. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate early literacy experiences.
Prerequisites: Complete one of the following options:
- ENG 090 and RED 090
- ENG 095
Corequisites: Take EDU 280

EDU 284. Early Childhood Capstone Practicum. 4.0 Credits. Class-1.0. Clinical-0.0. Lab-9.0. Work-0.0
This course is designed to allow students to apply skills in a three star (minimum) or NAECY accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/involving families; and modeling reflective and professional practices. Upon completion, students should be able to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors as indicated by assignments and onsite faculty visits.
Prerequisites: Complete one of the following options:
- Take ENG 090 RED 090 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 090 RED 090 EDU 119 EDU 144 PSY 244 PSY 245 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 090 RED 090 EDU 119 PSY 244 PSY 245 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 090 RED 090 EDU 119 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184

EDU 287. Leadership in Early Childhood Education. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to facilitate and guide the development of early childhood professionals preparing for leadership roles in improving community early childhood services. Topics include principles of social change, characteristics of effective leaders, techniques of action research, childcare funding mechanisms, quality initiatives, and key issues in early care. Upon completion, students should be able to identify key issues; develop strategic plans; establish relationships with community leaders; and identify opportunities and barriers for advocacy.
Prerequisites: Complete one of the following options:
- Take ENG 090 RED 090 EDU 119 EDU 131 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 090 RED 090 EDU 119 EDU 131 PSY 244 PSY 245 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 EDU 144 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 PSY 244 PSY 245 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 EDU 144 PSY 244 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 EDU 144 PSY 245 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 EDU 145 PSY 244 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
- Take ENG 095 EDU 119 EDU 131 PSY 244 PSY 245 EDU 145 EDU 146 EDU 151 EDU 151A EDU 251 EDU 251A EDU 280 EDU 280A EDU 131 EDU 221 EDU 259 EDU 184
EDU 288. Advanced Issues in Early Childhood Education. 2.0 Credits.
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers advanced topics and issues in early childhood. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain advanced current topics and issues in early childhood education.

Electric Utility Substation (EUS)

EUS 110. Introduction to Electric Utility Industry. 4.0 Credits.
Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides the student with an overview of the electric (power) utility industry. Topics include electric utility regulation and its scope, regulatory agencies and codes, electrical safety, electric system overview, electric generation, electric transmission, and electric distribution. Upon completion, students should be able to understand the need for electric utilities, their structure, and regulatory requirements on electric utilities.

Electrical (ELC)

ELC 111. Introduction to Electricity. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

ELC 112. DC/AC Electricity. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113. Residential Wiring. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conduits; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.

ELC 114. Commercial Wiring. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.

ELC 115. Industrial Wiring. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 116. Telecom Cabling. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the theory and practical application of both copper and fiber cabling for telecom systems. Topics include transmission theory, noise, standards, cable types and systems, connectors, physical layer components, installation, and ground/shielding techniques. Upon completion, students should be able to choose the correct cable, install, test, and troubleshoot cabling for telecom.
Prerequisites: Take ELC 110

ELC 117. Motors and Controls. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 118. National Electrical Code. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC 119. NEC Calculations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC 121. Electrical Estimating. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

ELC 125. Diagrams and Schematics. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

ELC 126. Electrical Computations. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental applications of mathematics which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.
ELC 127. Software for Technicians. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations and applications. Upon completion, students should be able to utilize a personal computer for electrical/electronics-related applications.

ELC 128. Introduction to Programmable Logic Controller. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.

ELC 130. Advanced Motors and Controls. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers motors concepts, construction and characteristics and provides a foundation in motor controls. Topics include motor control ladder logic, starters, timers, overload protection, braking, reduced voltage starting, SCR control, AC/DC drives, system and component level troubleshooting. Upon completion, students should be able to specify, connect, control, troubleshoot, and maintain motors and motor control systems.

ELC 131. Circuit Analysis I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC 132. Circuit Analysis II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers additional concepts of DC/AC electricity, the use of test equipment, and measurement techniques. Topics include the application of network theorems such as delta/wye transformations, Superposition Theorem, and other advanced circuit analysis principles. Upon completion, students should be able to construct and analyze DC/AC circuits used advanced circuit analysis theorems, circuit simulators, and test equipment.

ELC 135. Electrical Machines. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers magnetic circuits, transformers, DC/AC machines, and the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC machine circuits. Prerequisites: Take ELC 139 or ELC 131

ELC 136. Electrical Machines II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers DC/AC machine fundamentals including applications and control. Topics include control devices and induction single and polyphase AC motors, DC motors, stepper, and special purpose motors. Upon completion, students should be able to perform regulation and efficiency calculations and apply motor theory to practical control applications. Prerequisites: Take ELC 135

ELC 138. DC Circuit Analysis. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces DC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, and analyze DC circuits; and properly use test equipment. Prerequisites: Take ELC 138

ELC 213. Instrumentation. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the fundamentals of instrumentation used in industry. Emphasis is placed on electric, electronic, and other instruments. Upon completion, students should be able to install, maintain, and calibrate instrumentation.

ELC 215. Electrical Maintenance. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the theory of maintenance and the skills necessary to maintain electrical equipment found in industrial and commercial facilities. Topics include maintenance theory, predictive and preventive maintenance, electrical equipment operation and maintenance, and maintenance documentation. Upon completion, students should be able to perform maintenance on electrical equipment in industrial and commercial facilities.

ELC 220. Photovoltaic System Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

ELC 221. Advanced Photovoltaic System Designs. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces specific elements in photovoltaic (pv) systems technologies including efficiency, modules, inverters, charge controllers, batteries, and system installation. Topics include National Electrical Code (NEC), electrical specifications, photovoltaic system components, array design and power integration requirements that combine to form a unified structure. Upon completion, students should be able to demonstrate an understanding of various photovoltaic designs and proper installation of NEC compliant solar electric power systems.
ELC 225. Data Communication/Mfg. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the fundamentals of data communications in a manufacturing environment. Emphasis is placed on the principles and techniques required to implement data transfer between automated systems and plant information systems using current technology and devices. Upon completion, students should be able to plan, design, and implement data communication systems within the manufacturing environment.

ELC 228. Programmable Logic Controllers Applications. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

ELC 229. Applications Project. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELC 231. Electric Power Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and compare different types and sizes of circuit protection devices.
Prerequisites: Take ELC 135

ELC 233. Energy Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers energy management principles and techniques typical of those found in industry and commercial facilities, including load control and peak demand reduction systems. Topics include load and peak demand calculations, load shedding, load balance and power factor, priority scheduling, remote sensing and control, and supplementary/alternative energy sources. Upon completion, students should be able to determine energy management parameters, calculate demand and energy use, propose energy management procedures, and implement alternative energy sources.

ELC 234. Electrical System Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the principles of electrical design for commercial and industrial facilities. Topics include services, high and low power distribution, switchboards, panelboards, motor control centers, switchgear, overcurrent protection, and grounding. Upon completion, students should be able to design services, feeders, and branch circuits for typical commercial/industrial applications in accordance with the National Electrical Code.

ELC 1124. Electrical. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is reserved for a freshmen-level course from an institution of the UNC System, contracted to be provided for a community college. The college should enter the course prefix/number, title, distribution of hours, prerequisites, corequisites, and course description as it appears in the UNC institution catalog. Upon successful completion, students should have earned 3 hours of credit equivalent to the course offered at the UNC institution. Built for Quarter classes history load.

Electronic Commerce (ECM)

ECM 210. Introduction to E-Commerce. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A with a minimum grade of C
• Take RED 090 EFL 111 or ENG 111 with a minimum grade of C

Electronics (ELN)

ELN 112. Diesel Electronics System. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces electronic theory and applications as used in medium and heavy duty vehicles. Emphasis is placed on the basic function and operation of semiconductor and integrated circuits. Upon completion, students should be able to identify electronic components, explain their use and function, and use meters and flow charts to diagnose and repair systems.

ELN 116. Telecom Digital Logic. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the application of binary logic circuits to digital systems. Emphasis is placed on circuits that are utilized in telecom systems. Upon completion, students will be able to construct, analyze, verify, and troubleshoot telecom digital systems using appropriate techniques and test equipment.

ELN 131. Analog Electronics I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

ELN 132. Linear Integrated Circuits Applications. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, waveform generators, active filters, IC voltage regulators, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.
Prerequisites: Take ELN 131E
ELN 133. Digital Electronics. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.
Prerequisites: Take ELC 112 ELC 131 ELC 5400 ELC 5402 ELC 3515 ELC 138 or ELN 3514
Take ELC 112 ELC 131 ELC 5400 ELC 5402 ELC 3515 ELC 138 or ELN 3514

ELN 144. Video Recording Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a detailed study of the operation and repair of video recording systems. Topics include operation, alignment, and repair of video recording systems. Upon completion, students should be able to troubleshoot, maintain, and repair video recording systems.

ELN 150. Computer-Aided Drafting for Electronics. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the field of microelectronics and semiconductor processing. Topics include circuit layout, mask making, photolithography diffusion, and thin-film processes for wafer fabrication. Upon completion, students should be able to identify different types of measuring, testing, and inspection equipment used for microelectronics circuits and understand failure analysis.

ELN 220. Semiconductor Analysis. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN 232. Introduction to Microprocessors. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.
Prerequisites: Take ELN 133E

ELN 233. Microprocessor Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the architecture and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.
Prerequisites: Take ELN 232

ELN 234. Communication Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.
Prerequisites: Take ELN 137 or ELN 131E
Corequisites: ELN 133E

ELN 235. Data Communication Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN 236. Fiber Optics and Lasers. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.
Prerequisites: Take ELN 137 or ELN 131E

ELN 237. Local Area Networks. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamentals of local area networks and their operation. Topics include the characteristics of network topologies, system hardware, system configuration, installation and operation of the LAN. Upon completion, students should be able to install and maintain a local area network.
Prerequisites: Take ELN 133E
ELN 247. Electronic App Project. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a structured approach to an application-oriented electronics project. Emphasis is placed on selecting, planning, implementing, testing, and presenting an application-oriented project. Upon completion, students should be able to present and demonstrate an electronics application-oriented project. Prerequisites: Take ELN 150 ELN 137

ELN 260. Prog Logic Controllers. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions. Prerequisites: Take ELN 133E or ELC 111E

ELN 264. Advanced Communication. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an in-depth study of RF circuits. Topics include microwave circuits, transmission media, radar and antenna systems, and energy sources. Upon completion, students should be able to explain operating units; safely test, adjust, and troubleshoot systems; and demonstrate and design a simple system.

ELN 271. RF Circuit Components I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the core processes and applications associated with the analysis of RF circuit components. Topics include the characteristics of RF circuits, testing, analysis, optimization, tuning, and test fixtures. Upon completion, students should be able to demonstrate basic skills associated with RF circuit component testing and analysis.

ELN 272. RF Circuit Components II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides the study of core processes and applications associated with the analysis and optimization of RF circuit components. Topics include the characteristics of RF circuits, testing, analysis, optimization, tuning, and test fixtures. Upon completion, students should be able to demonstrate more advanced skills associated with RF circuit component testing and analysis.

ELN 275. Troubleshooting. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers’ specifications. Prerequisites: Take ELN 137 ELN 133E

Engineering (EGR)

EGR 110. Introduction to Engineering Technology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces general topics relevant to engineering technology. Topics include career assessment, professional ethics, critical thinking and problem solving, usage of college resources for study and research, and using tools for engineering computations. Upon completion, students should be able to choose a career option in engineering technology and utilize college resources to meet their educational goals.

EGR 115. Intro to Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator.

EGR 115A. Intro to Technology Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory setting for EGR 111. Emphasis is placed on developing skills in dimensional analysis, measurement systems, engineering graphics, and calculator applications. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in EGR 115.

EGR 120. Engineering and Design Graphics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the graphical tools for engineering and design communications. Emphasis is placed upon selecting the appropriate methods and tools and conveying ideas using sketches, orthographic views and projections, and computer graphics applications. Upon completion, students should be able to communicate essential features or two-dimensional and three-dimensional objects using the proper tools and methods.

EGR 125. Appl Software for Tech. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces personal computer software and teaches students how to customize the software for technical applications. Emphasis is placed on the use of common office applications software programs such as spreadsheets, word processing, graphics, and internet access. Upon completion, students should be able to demonstrate competency in using applications software to solve technical problems and communicate the results in text and graphical formats.

EGR 150. Intro to Engineering. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, micro-computers in engineering. Upon completion, students should be able to demonstrate understanding of the engineering process and profession. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 210. Intro to Electrical/Computer Engineering Lab. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an overview of electrical and computer engineering, through a lecture and laboratory setting. Topics include fundamental concepts, electronic circuits, digital circuits, communication systems, and signal processing. Upon completion, students should be able to discuss the wide range of fields available to the electrical or computer engineer. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
EGR 212. Logic System Design I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to digital circuits and analysis. Topics include Boolean Algebra; mixed logic; design of combinational circuits; introduction to sequential systems; and MSI building blocks. Upon completion, students should be able to analyze and design digital circuits and systems. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 215. Network Theory I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to Kirchoff’s laws and terminal equations, circuit analysis techniques and network theorems, transient and natural response, and state variable analysis. Topics include Kirchoff’s laws, Ohm’s law, circuit analysis techniques, Network theorems, singularity functions, transient and natural responses, power, and state variable analysis. Upon completion, students should be able to analyze electric circuits involving capacitors, inductors, and resistors to determine required parameters. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 216. Logic and Network Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides laboratory experiments in network measurements and logic design and laboratory equipment and techniques. Topics include network measurement and applications, experimental logic design and introduction to laboratory equipment and techniques. Upon completion, students should be able to complete network measurement logic design and be able to use laboratory equipment with proper techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 218. Network Theory II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to sinusoidal functions and signals; power and energy; and mathematical series. Topics include sinusoidal steady state analysis; frequency domain analysis; Fourier and Laplace transforms; and two port networks. Upon completion, students should be able to analyze circuits involving sinusoidal functions and using mathematical techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 219. Instrumentation & Network Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides laboratory experiments in network measurements and applications, experimental logic design and an introduction to laboratory equipment and techniques. Topics includes laboratory experiments with electric circuits, components, instrumentation and networks. Upon completion, students should be able to utilize electric instruments to investigate electric circuits and networks. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 220. Engineering Statics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

EGR 225. Engineering Dynamics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts of engineering based on the analysis of motion in Cartesian, cylindrical, and spherical coordinate systems. Topics include the two and three dimensional motion of particles and rigid bodies, the forces associated with that motion, and relative motion between two coordinate systems. Upon completion, students should be able to solve problems which require the ability to analyze the motion and forces involved in a dynamic system.
Prequisites: Take EGR 220
Take EGR 220 with a minimum grade of C
Corequisites: Take MAT 273

EGR 228. Intro to Solid Mechanics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to engineering theory of deformable solids and applications. Topics include stress and deformation resulting from axial, torsion, and bending loads; shear and moment diagrams; Mohr’s circle of stress; and strain and buckling of columns. Upon completion, students should be able to analyze solids subject to various forces and design systems using a variety of materials. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

EGR 250. Statics/Strength of Mater. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-3.0. Work-0.0
This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.
Prequisites: Take MAT 121 MAT 161 MAT 171 or MAT 175 with a minimum grade of C

EGR 285. Design Project. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides the opportunity to design an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects.

English (ENG)

ENG 101. Applied Communications I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This course is restricted to diploma and/or certificate programs.
ENG 111. Expository Writing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in English composition.
Prerequisites: Take ENG 111

ENG 112. Argument-Based Research. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in English composition.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C

ENG 113. Literature-Based Research. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-Based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-Sound, documented essays and research papers that analyze and respond to literary works. This course will include the analysis of two of the following genres: short stories, poetry, and drama. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in English composition.
Prerequisites: Take ENG 111 with a minimum grade of C

ENG 114. Professional Research & Reporting. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in English composition.
Prerequisites: Take ENG 111 with a minimum grade of C

ENG 125. Creative Writing I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.
Prerequisites:
• Take ENG 111 with a minimum grade of C

ENG 126. Creative Writing II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.

ENG 133. Introduction to the Novel. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides intense study of the novel as a literary form, based on close reading of representative texts. Emphasis is placed on the development and analysis of the novel. Upon completion, students should be able to interpret, analyze, and discuss the distinguishing features of the novel.
Prerequisites: Take ENG 111 with a minimum grade of C
Corequisites: Take One: ENG 112, ENG 113, or ENG 114

ENG 192. Selected Topics in English. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

ENG 231. American Literature I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 232. American Literature II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.
Prerequisites: Take ENG 112 ENG 113 or ENG 114 with a minimum grade of C
ENG 241. British Literature I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 242. British Literature II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 251. Western World Literature I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 252. Western World Literature II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 253. The Bible As Literature. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the Hebrew Old Testament and the Christian New Testament as works of literary art. Emphasis is placed on the Bible’s literary aspects including history, composition, structure, and cultural contexts. Upon completion, students should be able to identify and analyze selected books and passages using appropriate literary conventions. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 261. World Literature I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary beginnings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

ENG 262. World Literature II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 271. Contemporary Literature. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes a study of contemporary literature. Emphasis is placed on literary and cultural trends of selected texts. Upon completion, students should be able to interpret, analyze, and respond to the literature. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 272. Southern Literature. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an analytical study of the works of several Southern authors. Emphasis is placed on the historical and cultural contexts, themes, aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 273. African-American Literature. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a survey of the development of African-American literature from its beginnings to the present. Emphasis is placed on historical and cultural context, themes, literary traditions, and backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and respond to selected texts. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 274. Literature by Women. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an analytical study of the works of several women authors. Emphasis is placed on the historical and cultural contexts, themes and aesthetic features of individual works, and biographical backgrounds of the authors. Upon completion, students should be able to interpret, analyze, and discuss selected works. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

ENG 275. Science Fiction. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the relationships between science and literature through analysis of short stories and novels. Emphasis is placed on scientific discoveries that shaped Western culture and our changing view of the universe as reflected in science fiction literature. Upon completion, students should be able to trace major themes and ideas and illustrate relationships between science, world view, and science fiction literature. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
English As a Foreign Language (EFL)

**EFL 111. English for Internationals I. 4.0 Credits.** Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare advanced non-native speakers of English for successful college-level writing. Emphasis is placed on developing and supporting academic and cultural themes, editing for grammatical correctness and clarity, and determining approaches for different audiences and purposes. Upon completion, students should be able to produce college-level essays in a variety of rhetorical formats. Prerequisites: Take EFL 084 EFL 094 with a minimum grade of C Take EFL 084 EFL 094 with a minimum grade of C Corequisites: EFL 181

**EFL 112. English for Internationals II. 4.0 Credits.** Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to refine academic reading, listening, and speaking skills for advanced non-native speakers of English. Emphasis is placed on understanding and analyzing university-level texts on different cultural and academic topics and developing effective note-taking and presentation skills in various disciplines. Upon completion, students should be able to integrate information from academic lectures and readings and make academic presentations. Prerequisites: Take EFL 064 EFL 074 with a minimum grade of C Take EFL 064 EFL 074 with a minimum grade of C Corequisites: EFL 182

**EFL 181. EFL Lab 1. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance the preparation of advanced non-native speakers of English for successful communication as required in college-level courses. Emphasis is placed on the writing and editing of compositions for grammatical accuracy and clarity through the use of supplementary learning media and materials. Upon completion, students should be able to converse and write in various organizational formats.

**EFL 182. EFL Lab 2. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to enhance reading and comprehension skills for advanced non-native speakers of English. Emphasis is placed on understanding academic texts and developing effective note-taking skills through the use of supplementary learning media and materials. Upon completion, students should be able to differentiate between main points, supporting and extraneous information, and take organized notes on lectures and texts.

Environmental Science (ENV)

**ENV 110. Environmental Science. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers fundamental scientific principles and problems facing society today. Topics include population, natural resources, air and water pollution, and waste disposal problems. Upon completion, students should be able to demonstrate insight into the role the individual plays in shaping the environment.

**ENV 110A. Environmental Science Laboratory. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a laboratory component to complement ENV 110. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental relationships and of contemporary environmental issues.

**ENV 120. Earth Science. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the fundamental principles of earth science that provide a foundation for continued study in environmental science. Emphasis is placed on the basic principles of geology, oceanography, meteorology, astronomy, and the development of inquiry about the natural world through observation. Upon completion, students should be able to demonstrate an understanding of the component areas of earth science.

**ENV 218. Environmental Health. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the influence of environmental conditions on human health. Emphasis is placed on environmental contaminants and the major exposure routes of the human body. Upon completion, students should be able to examine segments of the environment, including air, water, and food, and determine how the conditions of these influence human health.

**ENV 220. Applied Ecology. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the relationships between organisms and their environment and the interactions among organisms. Topics include environmental factors affecting aquatic and terrestrial systems, regulation and dynamics of populations, interactions among species, and the ecological viewpoint in modern land management. Upon completion, students should be able to demonstrate an understanding of the relationship between man and his environment and the ecological impact of human activities.

**ENV 224. Land Resource Management. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers methods of properly managing land-based resources for maximum conservation and use. Emphasis is placed on the physical, biological, and ecological principles underlying sustainable use of soil, mineral, forest, and ground and surface water resources for current and future generations. Upon completions, students should be able to develop conservation plans for sustainable use of major land resources. Prerequisites: take 1 group #take env 110 min grade c #take bio 140 bio 140a min grade c #take env 120 min grade c #take gel 120 min grade c #take phs 130 min grade c Complete one of the following options:  
- Take ENV 110 with a minimum grade of C  
- Take BIO 140 BIO 140A with a minimum grade of C  
- Take ENV 120 with a minimum grade of C  
- Take GEL 120 with a minimum grade of C  
- Take PHS 130 with a minimum grade of C
ENV 226. Environmental Law. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers federal laws and acts concerning environmental quality standards and the use of resources, legal procedures for enforcing laws, and problems concerning enforcement. Emphasis is placed on environmental law basics, water quality laws, air quality laws, waste disposal laws, and biological resource protection laws. Upon completion, students should be able to demonstrate an understanding of federal/state environmental laws and their importance to the protection of environmental quality.

ENV 232. Site Assessment and Remediation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts and techniques utilized in the assessment and remediation of contaminated soils and groundwater. Emphasis is placed on hydrogeology, environmental sampling, and remediation practices. Upon completion, the student should be able to properly sample environmental media, demonstrate a knowledge of groundwater dynamics, and discuss various remediation approaches.

ENV 242. Land Quality. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course examines the constituents of soils from a biological, physical and geochemical perspective. Topics include common components of soils, land quality regulations, sustainable agriculture and development, soil contamination and remediation, hydrogeology, and mining and dams. Upon completion, students should be able to demonstrate an understanding of the biological, chemical and geological factors affecting land quality.

**Fire Protection (FIP)**

FIP 120. Introduction to Fire Protection. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the development, methods, systems and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and related subjects. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP 124. Fire Prevention & Public Education. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces fire prevention concepts as they relate to community and industrial operations. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group, meeting NFPA 1021.

FIP 128. Detection & Investigation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers procedures for determining the origin and cause of accidental and incendiary fires. Topics include collection and preservation of evidence, detection and determination of accelerants, courtroom procedure and testimony, and documentation of the fire scene. Upon completion, students should be able to conduct a competent fire investigation and present those findings to appropriate officials or equivalent, meeting NFPA 1021.

FIP 132. Building Construction. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions, meeting NFPA 1021.

FIP 136. Inspections & Codes. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the fundamentals of fire and building codes and procedures to conduct an inspection. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report, meeting NFPA 1021.

FIP 140. Industrial Fire Protection. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers fire protection systems in industrial facilities. Topics include applicable health and safety standards, insurance carrier regulations, other regulatory agencies, hazards of local industries, fire brigade operation, and loss prevention programs. Upon completion, students should be able to plan and evaluation an industrial facility’s fire protection which elements of NFPA 1021 for Fire Officer I and II.

FIP 144. Sprinklers & Automatic Alarms. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces various types of automatic sprinklers, standpipes, and fire alarm systems. Topics include wet or dry systems, testing and maintenance, water supply requirements, fire detection and alarm systems, and other related topics. Upon completion, students should be able to demonstrate a working knowledge of various sprinkler and alarm systems and required inspection and maintenance.

FIP 148. Fixed & Portable Extinguishing Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of various types of fixed and portable extinguishing systems, their operation, installation, and maintenance. Topics include applications, testing, and maintenance of Halon, carbon dioxide, dry chemical, and special extinguishing agents in fixed and portable systems. Upon completion, students should be able to identify various types of fixed and portable systems, including their proper application and maintenance.

FIP 152. Fire Protection Law. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers fire protection law. Topics include legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

FIP 220. Fire Fighting Strategies. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident system as it relates to operations involving various emergencies in fire and non-fire situations, meeting NFPA 1021.
### FIP 221. Advanced Fire Fighting Strategies. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced ICS, advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

### FIP 224. Fire Instructor I & II. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the knowledge, skills, and abilities needed to train others in fire service operations. Topics include planning, presenting, and evaluating lesson plans, learning styles, use of media, communication, and other related topics. Upon completion, students should be able to meet the requirements of the Fire Instructor I and II objectives from National Fire Protection Association (NFPA) 1041.

### FIP 226. Fire Officer I & II. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the knowledge, skills, and requirements referenced in the National Fire Protection Association (NFPA) Standard 1021 for Fire Officer I and II training. Topics include officer roles and responsibilities, budgets, fire cause determination, inspections, education, leadership, management, public relations, and other requirements included in the NFPA standard. Upon completion, students should be able to demonstrate an understanding of relevant NFPA standards as required for state Fire Officer I and II certification.

### FIP 229. Fire Dynamics and Combustion. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the theories and fundamentals of how and why fires start and spread, and how they are safely controlled. Topics include components of fire, fire sources, fire behavior, properties of combustible solids, classification of hazards, and the use of fire extinguishing agents. Upon completion, students should be able to describe the properties of matter and dynamics of fire, identify fuel sources, and compare suppressants and extinguishment techniques.

### FIP 230. Chemistry of Hazardous Materials I. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the evaluation of hazardous materials. Topics include use of the periodic table, hydrocarbon derivatives, placards and labels, parameters of combustion, and spill and leak mitigation. Upon completion, students should be able to demonstrate knowledge of the chemical behavior of hazardous materials.

### FIP 231. Chemistry of Hazardous Materials II. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers hazardous materials characterization, properties, location, handling and response guidelines, hazard survey principles, and other related topics. Topics include radiation hazards, instruments, inspections, and detection of the presence of hazardous materials in industrial/commercial occupancies. Upon completion, students should be able to inspect chemical/radioactive sites and use on-site visits to gasoline and/or LPG storage facilities/chemical plants to develop a pre-plan.

### FIP 232. Hydraulics & Water Distribution. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests, and demonstrate knowledge of water distribution systems.

### FIP 236. Emergency Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the four phases of emergency management: mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.

### FIP 240. Fire Service Supervision. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor’s job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of effective fire service supervision, meeting elements of NFPA 1021.

### FIP 248. Fire Service Personnel Administration. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basics of setting up and administering the personnel functions of fire protection organizations. Emphasis is placed on human resource planning, classification and job analysis, equal opportunity employment, affirmative action, recruitment, retention, development, performance evaluation, and assessment centers. Upon completion, students should be able to demonstrate knowledge of the personnel function as it relates to managing fire protection.

### FIP 256. Municipal Public Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a general survey of municipal public relations and their effect on the governmental process. Topics include principles of public relations, press releases, press conferences, public information officers, image surveys, and the effects of perceived service on fire protection delivery. Upon completion, students should be able to manage public relations functions of organizations which meet elements of NFPA 1021 for Fire Officer I and II.

### FIP 264. Flame Prop & Mat Rating. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the role of interior finishes in fires, smoke obscuration and density, flame spread, pyrolysis, and other related topics. Emphasis is placed on testing equipment which includes Rack Impingement, Bench Furnace, and the two-foot tunnel. Upon completion, students should be able to understand the operation of the testing equipment and compile a reference notebook.

### FIP 276. Managing Fire Services. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of fire department operative services. Topics include finance, staffing, equipment, code enforcement, management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles, meeting NFPA 1021.
FIP 277. Fire and Social Behavior. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers fire-related aspects of human behavior, with an emphasis on research and a systems approach to human-behavior analysis. Topics include identification of populations and structures at high risk, evaluation of systems models, and use of computer models to predict human behavior during fires. Upon completion, students should be able to identify and anticipate human behavior in response to various residential, commercial, board-and-care facility, and wildland/rural fire events.

Floral Design (FLO)
FLO 189. Basic Floral Design. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides general knowledge of floral design on a non-commercial level. Topics include simple corsage work, vase arrangements, and holiday novelty items. Upon completion, students should be able to tie a bow and construct simple corsages, bud vases, and holiday items.

Food Service (FST)
FST 108. Purchasing and Cost Control. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the concepts associated with the control of primary costs in foodservice establishments: purchasing and cost controls. Topics include the purchasing, receiving, storage, issuance, and production of products, as well as revenue, inventory, and labor controls. Upon completion, students should be able to apply the necessary knowledge and skills required to understand and control the primary costs for a foodservice establishment.

French (FRE)
FRE 111. Elementary French I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
Corequisites: FRE 181

FRE 112. Elementary French II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Take FRE 111 FRE 181 with a minimum grade of C Corequisites: FRE 182

FRE 161. Cultural Immersion. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course explores Francophone culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate an understanding of cultural differences. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take FRE 111 with a minimum grade of C

FRE 181. French Lab 1. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

FRE 182. French Lab 2. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take FRE 111 FRE 181 with a minimum grade of C Corequisites: FRE 112

FRE 211. Intermediate French I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Take FRE 112 FRE 182 with a minimum grade of C Corequisites: FRE 281
**FRE 212. Intermediate French II. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/ fine arts. 
Prerequisites: Take FRE 211 FRE 281 with a minimum grade of C
Corequisites: FRE 282

**FRE 221. French Conversation. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity for intensive communication in spoken French. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. 
Prerequisites: Take FRE 212 with a minimum grade of C

**FRE 281. French Lab 3. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. 
Prerequisites: Take FRE 112 FRE 182 with a minimum grade of C
Corequisites: FRE 211

**FRE 282. French Lab 4. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course has been approved to satisfy the comprehensive articulation agreement for transferability as a pre-major and/or elective course requirement. 
Prerequisites: Take FRE 211 FRE 281 with a minimum grade of C

---

**GIS 110. Survey of GIS/GPS. 1.0 Credit.** Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the methods and techniques used in the Geographic Information System (GIS) and Global Positioning Systems (GPS) profession. Emphasis is placed on problem solution sequences and advisement, counseling, and technical methodology, including technical computer usage and technical graphics. Upon completion, students should be able to identify major fields using GIS/GPS technologies and apply their methodologies toward problem resolution.

---

**GIS 111. Introduction to GIS. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the hardware and software components of a Geographic Information System and reviews GIS applications. Topics include data structures and basic functions, methods of data capture and sources of data, and the nature and characteristics of spatial data and objects. Upon completion, students should be able to identify GIS hardware components, typical operations, products/applications, and differences between database models and between raster and vector systems.

**GIS 112. Introduction to GPS. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of Global Positioning Systems (GPS). Topics include the theory, implementation, and operations of GPS, as well as alternate data source remote sensing. Upon completion, students should be able to demonstrate an understanding of the fundamentals of GPS.

**GIS 120. Introduction to Geodesy. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental concepts behind map projections, datums, and coordinate systems. Topics include the theory of how the earth's shape is defined and how geographic features are positioned using spherical coordinate systems. Upon completion, students should be able to demonstrate an understanding of the fundamentals of geodesy as it relates to the measurement and representation of the earth.

**GIS 121. Georeferencing & Mapping. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces coordinate systems, fundamentals of surveying, and cartography. Topics include the theory, acquisition, and use of locational data using both continuous and discrete georeferencing methods. Upon completion, students should be able to identify appropriate coordinate systems for a situation and translate data into correct map form.

**GIS 125. CAD for GIS. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts of Computer Aided Drafting (CAD) as well as software that is used for building geographic data for a GIS. Emphasis is placed on the learning of basic commands used in building spatial data. Upon completion, the student will be able to operate within a CAD environment.

**GIS 161. Introduction to Computers-BASIC and C++. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the electronic computer and includes a description of computer design and operation, associated vocabulary, and most widely used applications. Emphasis is placed on hands-on experience with software. Upon completion, students should be able to utilize and depict calculations, decision-making branching and looping functions processing, and top-down programming methodology.

**GIS 211. GIS/GPS Project. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the opportunity to interact with a municipal, industrial, or service organization. Emphasis is placed on defining a question, gathering and analyzing pertinent data, and drawing conclusions leading to question resolution. Upon completion, students should be able to demonstrate their command of GIS/GPS applications for problem solving.

Prerequisites: Take GIS 111

---

**Geographic Information Systems (GIS)**

**GIS 110. Survey of GIS/GPS. 1.0 Credit.** Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the methods and techniques used in the Geographic Information System (GIS) and Global Positioning Systems (GPS) profession. Emphasis is placed on problem solution sequences and advisement, counseling, and technical methodology, including technical computer usage and technical graphics. Upon completion, students should be able to identify major fields using GIS/GPS technologies and apply their methodologies toward problem resolution.
GIS 215. GIS Data Models. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers interpreting and understanding of a variety data formats available in GIS. Topics include the similarities and differences between data models as well as how data is treated differently within each format, to include the conversion of data between different environments. Upon completion, students should be able to demonstrate an understanding of the fundamentals of GIS data storage and interoperability.
Prerequisites: Take GIS 111

GIS 221. Advanced Topics in GIS. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers technical aspects of GIS functions, algorithms, theory of geographical data structures, and error handling. Emphasis is placed on laboratory experiences requiring manipulation of tools, data, and macros. Upon completion, students should be able to demonstrate the ability to evaluate digital cartographic communication, and stressing the new and important roles digital cartography is coming to play in cyberspace. Upon completion, students should be able to demonstrate the ability to evaluate digital cartographic information and create effective internet maps.
Prerequisites: Take GIS 111

GIS 222. Internet Mapping. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed as an introduction to multimedia, interactive, animated, and Web cartography. Topics include the principles of effective cartographic communication, and stressing the new and important roles digital cartography is coming to play in cyberspace. Upon completion, students should be able to demonstrate the ability to evaluate digital cartographic information and create effective internet maps.
Prerequisites: Take GIS 111

GIS 225. Advanced Methods in GIS. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course promotes the analytic and critical thinking that is required when conducting statistical analysis of geographic data. Emphasis is placed on understanding data at a descriptive level for the conducting of statistical analysis. Upon completion, students will be able to understand the unique characteristics of geo-referenced data.

GIS 230. GIS Data Creation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental concepts of primary GIS data creation. Topics include the collection of field data, digital conversion of existing hardcopy maps, and the construction of spatial data from known geodetic locations. Upon completion, students should be able to demonstrate an ability to collect, create, and process spatial data within a variety of environments.
Prerequisites: Take GIS 111

GIS 231. Geographical Positioning System Methods. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers quantitative techniques for collection, classification, and spatial analysis of geographical data. Emphasis is placed on map analysis and application of spatial analysis. Upon completion, students should be able to collect, record, and utilize geographical data.
Prerequisites: Complete one of the following options:
• Take GIS 111 GIS 112
• Take GIS 120

GIS 232. Spatial Databases. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers various stages of spatial database design and implementation, including conceptual models and query languages. Topics include spatial networks, spatial data mining, indexing, and query processing. Upon completion, students should be able to demonstrate a comprehensive knowledge of spatial databases management systems.
Prerequisites: Take GIS 111 GIS 121

GIS 235. Raster GIS. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course will provide students with the fundamentals of analyzing remotely sensed data. Emphasis is placed on digital image enhancement as a means to further data analysis. Upon completion, students will be able to accurately interpret and analyze remotely sensed data for use in a raster or vector GIS.

GIS 240. Air Photo Interpretation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to introduce the student to remote sensing, photogrammetry and various components of land use mapping. Emphasis is placed on the art and science of aerial photo interpretation. Upon completion, students will be able to review, gather and analyze data from diverse forms of image maps.
Prerequisites: Take GIS 111

GIS 241. Cartographic Production. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the application of computerized cartography, to include the science and art of map design. Topics include the use of maps as an effective medium, efficient map layout and large-scale map production. Upon completion, students should be able to create a variety of map products for an audience or client.
Prerequisites: Take GIS 111 GIS 121

GIS 245. Introduction to Spatial Analysis. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to expose students to various components of spatial analysis. Emphasis is placed on modeling and decision making with the use of spatial data. Upon completion, students will be able to utilize statistical models in the process of spatial analysis.

GIS 246. Principles of Property Mapping. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers interpreting and understanding land records, updating parcel data, and utilizing the data for information retrieval and spatial analysis. Topics include the use and development of parcel information, parcel boundaries, and legal land descriptions. Upon completion, students should be able to demonstrate an understanding of the fundamentals of parcel mapping.
Prerequisites: Take GIS 111 GIS 121

GIS 249. Remote Sensing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces remote sensing and presents an overview of the use of satellite imagery within the field of geospatial technology. Topics will include the principles of remote sensing, satellite platforms, and sensors. Upon completion, students should be able to demonstrate an understanding of data sources, uses, and analysis techniques of remote sensing.
GIS 251. Computer Graphics/Mapping. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the various methods and techniques of assisted and generated images. Emphasis is placed upon knowledge of and use of draw and paint software, basic word processing, and map production. Upon completion, students should be able to produce and utilize computer generated images.

GIS 252. Utilities in GIS. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
The student will gain an understanding of utilizing GIS for utilities applications. Topics include the theory and implementation of GIS networks effectively in real world utility scenarios. Upon completion, students should be able to demonstrate an understanding of the fundamentals of utility mapping, including the use of correct terminology and symbology.
Prerequisites: Take GIS 111 GIS 121

GIS 255. Advanced Spatial Analysis. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to combine the constituents of Geographic Information Science. Emphasis is placed on the acquisition, refinement and analysis of data from numerous sources. Upon completion, students will be able to extract tangible results gained from the manipulation of a diversified group of information resources.

GIS 259. Photogrammetry. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the history and advancements in photogrammetry. Topics will include photogrammetric techniques, aerial cameras, camera calibration, and stereoscopy. Upon completion, students will demonstrate an understanding of the methods and techniques used to gather photogrammetric data.

GIS 261. Programming in GIS. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
The course provides an understanding of how to customize GIS software applications by way of modified toolbars, menus, and buttons. Topics include the theory and implementation of the various scripting languages currently in use. Upon completion, students should be able to modify the appearance of interface elements, save interface customizations, and add custom functionality to a GIS application.
Prerequisites: Take GIS 111 GIS 161

GIS 262. GIS Programming Trends. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces non-proprietary and innovative software used in geospatial technology. Topics will include an overview of open source and/or emerging software used in geographic information systems. Upon completion, students should be able to demonstrate current trends and issues in new technologies as they relate to the geospatial information.
Prerequisites:
• Take GIS 161

Geography (GEO)

GEO 110. Introduction to Geography. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces map reading skills and the physical and cultural features of different areas of the earth. Topics include spatial association, the importance of location, physical characteristics of the earth, and the impact of humans on the environment. Upon completion, students should be able to demonstrate an ability to read a map and describe physical and cultural features of different regions. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

GEO 111. World Regional Geography. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the regional concept which emphasizes the spatial association of the people and their environment. Emphasis is placed on the physical, cultural, and economic systems that interact to produce the distinct regions of the earth. Upon completion, students should be able to describe variations in physical and cultural features of a region and demonstrate an understanding of their functional relationships. This course is intended for all associate degree programs. This course is intended as a behavioral and social sciences course.

GEO 131. Physical Geography I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic physical components that help shape the earth. Emphasis is placed on the geographic grid, cartography, weather, climate, biogeography, and soils. Upon completion, students should be able to identify these components and explain how they interact. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

GEO 132. Physical Geography II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the study of minerals, rocks, evolution of landforms, and consequences of landscape change. Emphasis is placed on mineral composition, fluvial processes, erosion and deposition, glaciers, and coastal processes. Upon completion, students should be able to identify these components and processes and to explain how they interact.

Geology (GEL)

GEL 111. Introductory Geology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

GEL 113. Historical Geology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
GEL 120. Physical Geology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

GEL 220. Marine Geology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course presents a detailed examination of coastal and sea floor geology. Emphasis is placed on coastal and sea floor landforms and processes that shape these features. Upon completion, students should be able to describe the origin and evolution of both coastal and sea floor landforms. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

GEL 230. Environmental Geology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides insights into geologic forces that cause environmental changes influencing man's activities. Emphasis is placed on natural hazards and disasters caused by geologic forces. Upon completion, students should be able to relate major hazards and disasters to the geologic forces responsible for their occurrence. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics. Prerequisites: Take GEL 111 GEL 120 or PHS 130 with a minimum grade of C

German (GER)

GER 111. Elementary German I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamental elements of the German language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C
Corequisites: GER 181

GER 112. Elementary German II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of GER 111 focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Take GER 111 GER 181 with a minimum grade of C Corequisites: GER 182

GER 120. German for the Workplace. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers applied German for the workplace to facilitate basic communication with people whose native language is German. Emphasis is placed on oral communication and career-specific vocabulary that targets business and industry. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

GER 161. Cultural Immersion. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course explores German culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate an understanding of cultural differences. This course is approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement. Prerequisites: Take GER 111 with a minimum grade of C

GER 181. German Lab 1. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written German and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

GER 182. German Lab 2. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the German language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take GER 111 GER 181 with a minimum grade of C
GER 211. Intermediate German I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Take GER 112 GER 182 with a minimum grade of C
Corequisites: GER 282

GER 212. Intermediate German II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a continuation of GER 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Take GER 211 GER 281 with a minimum grade of C
Corequisites: GER 282

GER 221. German Conversation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity for intensive communication in spoken German. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take GER 212 with a minimum grade of C

GER 281. German Lab 3. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take GER 112 GER 182 with a minimum grade of C

GER 282. German Lab 4. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the German language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take GER 211 GER 281 with a minimum grade of C

Gerotology (GRO)

GRO 120. Gerontology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the psychological, social, and physical aspects of aging. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

Graphic Arts (GRA)

GRA 110. Graphic Arts Orientation. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history, development, and commercial applications of the major printing processes. Topics include offset lithography, screen printing, intaglio, relief printing, and emerging technologies. Upon completion, students should be able to demonstrate an understanding of the major characteristics, advantages, and disadvantages of each process.

GRA 112. Graphics Problem Solving. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers computations used in graphic arts production. Topics include measurement systems, ratios and scaling, and paper-cutting calculations. Upon completion, students should be able to apply mathematical skills to problem solving in graphic arts and imaging production.

GRA 121. Graphic Arts I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces terminology, tools and materials, procedures, and equipment used in graphic arts production. Topics include copy preparation and pre-press production relative to printing. Upon completion, students should be able to demonstrate an understanding of graphic arts production.

GRA 130. Print Career Exploration. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces employment opportunities and requirements in the graphic arts and imaging technology fields. Topics include career choices, operations, graphic arts businesses, and related business issues. Upon completion, students should be able to demonstrate an understanding of the graphic arts field and consider an appropriate career specialization.

GRA 140. Graphic Arts Imaging. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the use of photographic and electronic imaging techniques in the printing industry. Topics include exposure control and manipulation for a variety of process photography procedures and emerging electronic imaging techniques. Upon completion, students should be able to create line, special effect, and halftone images by both conventional and computer imaging methods.

GRA 151. Computer Graphics I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the use of hardware and software for production and design in graphic arts. Topics include graphical user interface and current industry uses such as design, layout, typography, illustration, and imaging for production. Upon completion, students should be able to understand and use the computer as a fundamental design and production tool.
GRA 152. Computer Graphics II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced design and layout concepts utilizing illustration, page layout, and imaging software in graphic arts. Emphasis is placed on enhancing and developing the skills that were introduced in GRA 151. Upon completion, students should be able to select and utilize appropriate software for design and layout solutions.

GRA 153. Computer Graphics III. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of GRA 152. Emphasis is placed on advanced computer graphics hardware and software applications. Upon completion, students should be able to demonstrate competence in selection and utilization of appropriate software for specialized applications.

GRA 154. Computer Graphics IV. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of GRA 153. Emphasis is placed on advanced techniques using a variety of hardware and software applications to produce complex projects. Upon completion, students should be able to use electronic document production tools.

GRA 161. Computer Graphics Applications I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce simple graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

GRA 162. Computer Graphics Applications II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce intermediate graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

GRA 163. Computer Graphics Applications III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce advanced graphic arts projects. Upon completion, students should be able to effectively use the computer as a graphic arts production tool.

GRA 164. Computer Graphics Applications IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to provide additional hands-on training using computer software and hardware for production and design in graphic arts. Emphasis is placed on utilizing various computer software and hardware to produce professional-quality graphic arts projects. Upon completion, students should be able to effectively and efficiently use the computer as a graphic arts production tool.

GRA 220. Industry Survey. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course explores various graphic arts businesses and trade associations through tours, guest speakers, and research. Emphasis is placed on presenting a broad industry overview through research of a variety of industry activities and relationships. Upon completion, students should be able to describe local graphic arts businesses and local and national trade and professional associations.

GRA 221. Graphic Arts II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is a continuation of GRA 121. Topics include multi-color image preparation, pre-press production, control of close/hairline register in image assembly and press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of graphic arts production.

GRA 222. Graphic Arts III. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is a continuation of GRA 221. Topics include advanced electronic pre-press, press operation, and post-press procedures. Upon completion, students should be able to demonstrate competence in all phases of advanced graphic arts production.

GRA 230. Substrates & Ink. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the manufacture, purchase, and use of printing substrates and inks in the graphic arts industry. Topics include the history, development, testing, purchasing, and use of ink, paper, and specialty substrates used in printing, as well as problems associated with each. Upon completion, students should be able to demonstrate an understanding of ink and substrate relationships in the design, planning, purchase, and production of a printed job.

GRA 245. Printing Sales/Service. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the operation of a sales, marketing, and service program for a printing company or printing supplier. Topics include marketing, prospecting, telephone sales, customer service, order entry, closing the sale, and answering objections. Upon completion, students should be able to understand the operation of sales and service in printing and printing supply organizations.

GRA 251. Imaging Theory. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers electronic imaging and methods and uses of digital images. Topics include examination of new media, markets, and audiences and their impact on current professional practices. Upon completion, students should be able to understand the impact of electronic imaging on current professional standards.

GRA 252. Imaging Techniques. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers electronic imaging and transfer and display of digital images through various media. Topics include analysis of electronic imaging, including uses, medium, outcome, storage, and display hardware and software. Upon completion, students should be able to demonstrate an understanding of electronic imaging techniques and purposes and complete related assignments.

GRA 255. Image Manipulation I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers applications associated with electronic image manipulation, including color correction, color separation, special effects, and image conversion. Topics include image-capturing hardware, image-processing software, and output options. Upon completion, students should be able to utilize hardware and software to acquire, manipulate, and output images to satisfy design and production.
GRA 256. Image Manipulation II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers electronic color separation and its relationship to multicolor printing. Topics include color theory, separation, color matching, proofing, and output of process and spot color images. Upon completion, students should be able to use hardware and image processing software to produce color separations and proofs for various printing processes.

GRA 257. Image Manipulation III. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of GRA 256. Emphasis is placed on producing quality color separations through image manipulation, gray component replacement/undercolor removal, dot-gain compensation, and color correction. Upon completion, students should be able to use hardware and software to produce color separations that have been adjusted to meet tolerances of printing production equipment.

GRA 280. Printing Management. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers management and supervision in the printing industry. Topics include planning, organization, plant layout, scheduling, goal setting, business ethics, personnel policies, leadership and personal development, OSHA and environmental laws, and employment laws. Upon completion, students should be able to demonstrate an understanding of management and supervision techniques and policies used in a variety of printing departments and organizations.

Graphic Design (GRD)

GRD 110. Typography I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.
Prerequisites: Take GRD 141, GRD 151

GRD 111. Typography II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of GRD 110. Emphasis is placed on solving challenging typographic problems. Upon completion, students should be able to understand and demonstrate advanced typographic applications. Students should be able to explore a variety of typographic solutions and manipulations and prepare work successfully for output.
Prerequisites: Take GRD 110, Take GRD 152

GRD 113. History of Graphic Design. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history of graphic design and visual communications. Topics include major trends, developments, influences, and directions. Upon completion, students should be able to understand, recognize, and analyze important historical and world-wide cultural influences found in today’s marketing of ideas and products.

GRD 121. Drawing Fundamentals I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works.

GRD 131. Illustration I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the application of rendering techniques to create illustrations. Emphasis is placed on controlling various media, methods, surfaces, design problems, and the appropriate media selection process. Upon completion, students should be able to produce quality illustrations from conception through finished artwork.
Prerequisites: Take GRD 141

GRD 132. Illustration II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of GRD 131. Topics include editorial, product, fashion, and advertising illustrations. Upon completion, students should be able to demonstrate increased proficiency in creating quality illustrations from conceptualization through finished artwork.

GRD 141. Graphic Design I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the conceptualization process used in visual problem solving. Emphasis is placed on learning the principles of design and on the manipulation and organization of elements. Upon completion, students should be able to apply design principles and visual elements to projects.

GRD 142. Graphic Design II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.
Prerequisites: Take GRD 151

GRD 151. Computer Design Basics. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.

GRD 152. Computer Design Techniques I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.
Prerequisites: Take GRD 141

GRD 160. Photo Fundamentals I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces basic camera operations, roll film processing, and photographic print production. Topics include contrast, depth-of-field, subject composition, enlarger operation, and density control. Upon completion, students should be able to produce photographic prints with acceptable density values and quality.
College-Level Courses

GRD 167. Photographic Imaging I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces basic camera operations and photographic production. Topics include subject composition, depth of field, shutter control, light control, color, photo-finishing, and digital imaging, correction and output. Upon completion, students should be able to produce traditional and/or digital photographic prints with acceptable technical and compositional quality.
Prerequisites: Take GRD 151 with a minimum grade of C

GRD 180. Interactive Design. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers skills and techniques used in designing interactive presentations. Emphasis is placed on design, including interface design, color, illustration, scripting, audio, typography, and animated elements. Upon completion, students should be able to design and produce interactive presentations.
Prerequisites: Take GRD 152

GRD 241. Graphic Design III. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.
Prerequisites: Take GRD 152

GRD 242. Graphic Design IV. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is a continuation of GRD 241. Emphasis is placed on using advanced media techniques, concepts, strategies, and professionalism in all aspects of design. Upon completion, students should be able to conceptualize, create, and produce designs for reproduction.
Prerequisites: Take GRD 111

GRD 263. Illustrative Imaging. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives.

GRD 265. Digital Print Production. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers preparation of digital files for output and reproduction. Emphasis is placed on output options, separations, color proofing, and cost and design considerations. Upon completion, students should be able to prepare files and select appropriate output methods for design solutions.
Prerequisites: Take GRD 241

GRD 280. Portfolio Design. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the organization and presentation of a design/advertising or graphic art portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.
Prerequisites: Take GRD 111 GRD 242

GRD 282. Advertising Copywriting. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers copywriting for print, electronic, and broadcast advertising and promotion. Topics include advertising strategies, proposals, headlines, slogans, and text copy for various types of advertising. Upon completion, students should be able to write and articulate advertising proposals and understand the ethical and regulatory environment for advertising.
Prerequisites: Take GRD 142

GRD 285. Client/Media Relations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces media pricing, scheduling, and business ethics. Emphasis is placed on communication with clients and determination of clients’ advertising needs. Upon completion, students should be able to use professional communication skills to effectively orchestrate client/media relationships.
Prerequisites: Take GRD 241

Health (HEA)

HEA 110. Personal Health/Wellness. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HEA 112. First Aid & CPR. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HEA 130. Health-Adult Sexuality. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information about health issues related to adult human sexuality. Topics include basic reproductive anatomy, contraceptive methods, STDs, and related information. Upon completion, students should be able to identify various related community agencies and available resources relating to sexual issues.

HEA 140. Health-Child Sexuality. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides health-related information about the concepts of human sexuality in children. Topics include typical and atypical sexual behaviors and health issues relating to children’s sexuality and relationships. Upon completion, students should be able to identify health issues relating to children’s sexual development and behavior.

HEA 191. Selected Topics in Health. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.
HEA 192. Selected Topics in Health. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HEA 193. Selected Health Topics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. This health telecourse provides information on various health topics of current interest today.

Health Information Technology (HIT)

HIT 110. Fundamentals of Health Information Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations and initiatives; payment and reimbursement systems, healthcare providers and disciplines; and electronic health records (EHRs). Upon completion, students should be able to demonstrate an understanding of health information management and healthcare organizations, professions and trends.
Prerequisites: Take ENG 111 MAT 115 CIS 110 with a minimum grade of C

HIT 112. Health Law and Ethics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.

HIT 114. Health Data Systems and Standards. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers concepts and techniques for managing and maintaining manual and electronic health records (EHR). Topics include structure and use of health information including data collection and analysis, data sources/sets, archival systems, and quality and integrity of healthcare data. Upon completion, students should be able to monitor and apply system-wide clinical documentation guidelines and comply with regulatory standards.

HIT 122. Professional Practice Experience I. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.
Prerequisites: Take HIT 110 with a minimum grade of C
Corequisites: HIT 210

HIT 124. Professional Practice Experience II. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.
Prerequisites:
- Take HIT 211 with a minimum grade of C
Corequisites: HIT 214

HIT 210. Healthcare Statistics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers maintenance, compilation, analysis, and presentation of healthcare statistics and research protocols and techniques. Topics include basic statistical principles, indices, databases, registries, vital statistics, descriptive statistics, research protocol monitoring, Institutional Review Board processes, and knowledge-based research techniques. Upon completion, students should be able to apply, interpret, and present healthcare statistics and utilize research techniques to gather and interpret healthcare data.
Prerequisites: Take Mat 110 Mat 115 Mat 140 or Mat 161 Min grade C
Take MAT 110 MAT 115 MAT 140 or MAT 161 with a minimum grade of C
Corequisites: HIT 122

HIT 211. ICD Coding. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers ICD diagnostics and procedural coding conventions and guidelines for inpatient, outpatient and ambulatory care. Emphasis is placed on a comprehensive application of anatomy, physiology and interrelationships among organ systems. Upon completion, students should be able to accurately assign and sequence diagnostic and procedural codes for patient outcomes, statistical and reimbursement purposes.
Prerequisites:
- Take HIT 122 with a minimum grade of C
Corequisites: HIT 218

HIT 214. CPT/Other Coding Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers application of principles and guidelines of CPT/HCPCS coding. Topics include clinical classification/terminology systems such as SNOMED, DSM, ICD-9 and the use of encoders. Upon completion, students should be able to apply coding principles to correctly assign CPT/HCPCS codes.
Prerequisites: Take HIT 211 with a minimum grade of C

HIT 215. Reimbursement Methodology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers reimbursement methodologies used in all healthcare settings as they relate to national billing, compliance, and reporting requirements. Topics include prospective payment systems, billing process and procedures, chargemaster maintenance, regulatory guidelines, reimbursement monitoring, and compliance strategies and reporting. Upon completion, students should be able to perform data quality reviews to validate code assignment and comply with reimbursement and reporting requirements.
HIT 216. Quality Management. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces principles of quality assessment and improvement, and utilization, risk, and case management, in healthcare. Topics include Continuous Quality Improvement, and case management processes, data analysis/reporting techniques, credentialing, regulatory quality monitoring requirements, and outcome measures and monitoring. Upon completion, students should be able to abstract, analyze, and report clinical data for facility-wide quality management/performance improvement programs and monitor compliance measures.
Prerequisites: Take HIT 210 HIT 212 HIT 218 HIT 220 HIT 222 HIT 114 with a minimum grade of C
Corequisites: HIT 124

HIT 218. Management Principles in HIT. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course covers organizational management concepts as applied to healthcare settings. Topics include roles/functions of teams/committees, leadership, communication and interpersonal skills, designing and implementing orientation/training programs, monitoring workflow, performance standards, revenue cycles, and organizational resources. Upon completion, students should be able to apply management, leadership, and supervisory concepts to various healthcare settings.
Prerequisites:
• Take HIT 210 HIT 220 with a minimum grade of C
Corequisites: HIT 212

HIT 220. Health Informatics & EHRs. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers EHR systems, design, implementation and application. Topics include EHR, Informatics, speech & imaging technology, information/network security & integrity, data dictionaries, modeling and warehousing. Upon completion, students should be able to facilitate usage of electronic health record systems and other technologies.
Prerequisites: Complete one of the following options:
• HIT 114 and CIS 110
• HIT 114 and CIS 111
Corequisites: HIT 122

HIT 221. Lifecycle of Electronic Health Record. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course covers the system selection, design and implementation of an electronic health record (EHR) in integrated delivery networks. Topics include the system development life cycle, analysis of existing systems, required resources, and common resource constraints. Upon completion, students should be able to understand system development life cycles, analyze design and engineering, and make recommendations to improve efficiency of operations.
Prerequisites: Take HIT 210 HIT 114
Corequisites: HIT 225

HIT 222. Prof Practice Exp Ill. 2.0 Credits. Class-0.0. Clinical-6.0.
Lab-0.0. Work-0.0
This course provides supervised clinical experience in healthcare settings. Emphasis is placed on practical application of curriculum concepts to the healthcare setting. Upon completion, students should be able to apply health information theory to healthcare facility practices.
Prerequisites:
• Take HIT 122 HIT 210 HIT 220 BIO 169 MED 122 with a minimum grade of C
Corequisites: HIT 212

HIT 225. Healthcare Informatics. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers data analysis to support decision making, patient care, and regulatory compliance. Topics include clinical terminology and vocabulary systems, data capture methodology, data presentation and reporting, and initiatives to improve the quality of patient care. Upon completion, students should be able to identify data elements and sets, analyze capture methodology in healthcare settings, analyze compliance issues and make improvement recommendations.
Prerequisites: Take HIT 110 HIT 114
Corequisites: HIT 221

HIT 226. Principles of Disease. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers disease etiology and organ system involvement, including physical signs and symptoms, prognoses, and common complications and their management. Topics include basic microbiology, basic pharmacology, and principles of disease. Upon completion, students should be able to relate disease processes to etiology, physical signs and symptoms, prognosis, and common complications and their management.
Prerequisites: Take both of the following groups:
• Take 1 course From BIO 166 BIO 169 with a minimum grade of C
• Take HIT 122 HIT 210 HIT 220 MED 122 with a minimum grade of C
Corequisites: HIT 212

HIT 227. Informatics Project Management. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course covers the required skills needed for implementing healthcare IT applications, with emphasis on electronic health records (EHR). Topics include leadership development skills, interdisciplinary collaboration, organizational change management, project management software, and the study of communication skills required across healthcare disciplines. Upon completion, students should be able to effectively collaborate and communicate with healthcare disciplines to implement informatics projects within the healthcare setting.
Prerequisites: Take HIT 110 HIT 114
Corequisites: HIT 221

HIT 280. Professional Issues. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comprehensive discussion of topics common to the health information profession. Emphasis is placed on application of professional competencies, job search tools, and preparation for the certification examination. Upon completion, students should be able to demonstrate competence in entry-level domains and subdomains for health information technologies.
Prerequisites: Take HIT 211 with a minimum grade of C

Heavy Equipment Maintenance (HET)

HET 110. Diesel Engines. 6.0 Credits. Class-3.0. Clinical-0.0. Lab-9.0. Work-0.0
This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is laced on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.
HET 114. Power Trains. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Upon completion, students should be able to identify, research specifications, repair, and adjust power train components.

HET 115. Electronic Engines. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturer's specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

HET 116. Air Conditioning - Diesel Equipment. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of the design, theory, and operation of heating and air conditioning systems in newer models of medium and heavy duty vehicles. Topics include component function, refrigerant recovery, and environmental regulations. Upon completion, students should be able to use proper techniques and equipment to diagnose and repair heating/air-conditioning systems according to industry standards.

HET 116A. Air Conditioning and Diesel Equipment Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory experience for enhancing student skills in the diagnosis and repair of heavy equipment and transport air conditioning (A/C) systems. Emphasis is placed on mobile air conditioning, reclaiming, recovery, recharging, leak detection, air conditioning components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to apply air conditioning concepts to the function and operation of A/C systems in medium and heavy duty vehicles.

HET 119. Mechanical Transmissions. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the operating principles of mechanical medium and heavy duty truck transmissions. Topics include multiple counter shafts, power take-offs, sliding idler clutches, and friction clutches. Upon completion, students should be able to diagnose, inspect, and repair mechanical transmissions.

HET 125. Preventive Maintenance. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and road ability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

HET 126. Preventive Maintenance Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory setting to enhance preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Emphasis is placed on practical experiences that enhance the topics presented in HET 125. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in HET 125.

HET 128. Medium/Heavy Duty Tune Up. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces tune-up and troubleshooting according to manufacturers' specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

HET 230. Air Brakes. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the operation and design of air braking systems used on trucks. Topics include safety, governors, compressors, and supporting systems. Upon completion, students should be able to diagnose, disassemble, inspect, repair, and reassemble air brake systems.

HET 231. Medium/Heavy Duty Brake Systems. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the theory and repair of braking systems used in medium and heavy duty vehicles. Topics include air, hydraulic, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair braking systems on medium and heavy duty vehicles.

HET 232. Medium/Heavy Duty Brake Systems Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a laboratory setting to enhance the skills for troubleshooting, adjusting, and repairing brake systems on medium and heavy duty vehicles. Emphasis is placed on practical experiences that enhance the topics presented in HET 231. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in HET 231.

HET 233. Suspension and Steering. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy duty vehicles.

High Performance Computing (HPC)

HPC 110. Introduction to High Performance Computing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the terminology, hardware performance issues, programming models and software tools available for High Performance Computing (HPC). Topics include a survey of HPC concepts and terminology, HPC operating systems, memory models and architecture, PC clusters, highly integrated supercomputers and high-speed communications. Upon completion, students should be able to build a PC cluster.
History (HIS)

HIS 111. World Civilizations I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

HIS 112. World Civilizations II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

HIS 131. American History I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

HIS 132. American History II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

HIS 141. Genealogy & Local History. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course explores the role of the local or family historian. Emphasis is placed on historical or genealogical research techniques including a survey of local, state, and national archival resources. Upon completion, students should be able to conduct genealogical research and do a major research project on local or family history. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

HIS 151. Hispanic Civilization. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the cultural history of Spain and its impact on the New World. Topics include Spanish and Latin American culture, literature, religion, and the arts. Upon completion, students should be able to analyze the cultural history of Spain and Latin America.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
HIS 221. African-American History. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course covers African-American history from the Colonial period to the present. Topics include African origins, the slave trade, the Civil War, Reconstruction, the Jim Crow era, the civil rights movement, and contributions of African Americans. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the history of African Americans. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

HIS 226. The Civil War. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course examines the social, political, economic, and ideological forces that led to the Civil War and reconstruction. Topics include regional conflicts and sectionalism, dissolution of the Union, military campaigns, and the War’s socioeconomic impact, aftermath and consequences. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the United States during the era of the Civil War. This course is intended for all associate degree programs.

HIS 231. Recent American History. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course is a study of American society from the post-Depression era to the present. Topics include world war ii, the cold war, social unrest, the vietnam war, the great society, and current political trends. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in recent america. This course is intended for all associate degree programs.

HIS 236. North Carolina History. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course is a study of geographical, political, economic, and social conditions existing in North Carolina from America’s discovery to the present. Topics include native and immigrant backgrounds; colonial, antebellum, and Reconstruction periods; party politics; race relations; and the transition from an agrarian to an industrial economy. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in North Carolina. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

HIS 260. History of Africa. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the history of Africa from pre-history to the present. Emphasis is placed on the evolution of social, political, economic, and governmental structures in Africa. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in Africa.
Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

HIS 261. East Asian History. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course surveys the history of China and Japan from the development of civilization in Asia to the present. Emphasis is placed on the evaluation of social, political, economic, and governmental structures in China and Japan. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in east Asia.
Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

HIS 262. Middle East History. 3.0 Credits. Class-3.0. Clinical-0.0. Work-0.0
This course surveys the history of the Middle East from the development of civilization in Mesopotamia to the present. Emphasis is placed on social, political, economic, religious, and governmental structures in the Middle East. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in the Middle East.
Prerequisites: Complete one of the following options:
- Take RED 090 ENG 090 ENG 090A with a minimum grade of C
- Take ENG 095 ENG 095A with a minimum grade of C
- Take EFL 111 EFL 112 with a minimum grade of C
- Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
- Take RED 090 EFL 111 with a minimum grade of C
- Take ENG 111 with a minimum grade of C

Horticulture (HOR)

HOR 112. Landscape Design I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization (encouraged use of native plants and discouraged use of invasive species). Upon completion, students should be able to read plans and draft a landscape design according to sustainable practices.
Prerequisites: Take HOR 160 or HOR 260 with a minimum grade of C
HOR 114. Landscape Construction. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

HOR 116. Landscape Management I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers information and skills necessary to analyze a property and develop a management schedule. Emphasis is placed on property measurement, plant condition, analysis of client needs, and plant culture needs. Upon completion, students should be able to analyze a property, develop management schedules, and implement practices based on client needs.

HOR 118. Equipment Operation and Maintenance. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the proper operation and maintenance of selected equipment used in horticulture. Emphasis is placed on the maintenance, minor repairs, safety devices, and actual operation of selected equipment. Upon completion, students should be able to design a maintenance schedule, service equipment, and demonstrate safe operation of selected equipment.

HOR 124. Nursery Operations. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers nursery site and crop selection, cultural practices, and production and marketing methods. Topics include site considerations, water availability, equipment, irrigation, fertilization, containers, media, and pest control. Upon completion, students should be able to design and implement a nursery operation and grow and harvest nursery crops.

HOR 134. Greenhouse Operations. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

HOR 142. Fruit & Vegetable Production. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the principles and techniques of growing fruits and field-grown vegetables. Topics include site selection, proper varietal selection, nutritional values, cultural techniques, harvesting and marketing, and insect and disease control. Upon completion, students should be able to demonstrate an understanding of the principles related to the production of selected fruits and vegetables.

HOR 150. Introduction to Horticulture. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history, development and basic techniques of horticulture. Topics include propagation techniques, planting procedures, watering and fertility, plant growth, pest and disease control, and garden design and history. Upon completion, students should be able to demonstrate an understanding of the basic principles of horticulture. Students will explore horticultural careers, organizations, and reference materials.

HOR 154. Introduction to Horticulture Therapy. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the concept of horticulture therapy and how it can be applied to improve human well-being. Emphasis is placed on developing a horticulture therapy program, planning activities, and adjusting activities based on the age, disability, or need of the individual. Upon completion, students should be able to develop project ideas, write lesson plans, and lead informal classes using horticulture therapy techniques.

HOR 160. Plant Materials I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification, culture, characteristics, and use of plants in a sustainable landscape. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants.

HOR 162. Applied Plant Science. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic concepts of botany as they apply to horticulture. Topics include nomenclature, physiology, morphology, and anatomy as they apply to plant culture. Upon completion, students should be able to apply the basic principles of botany to horticulture.

HOR 164. Horticultural Pest Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the identification and control of plant pests including insects, diseases, and weeds. Topics include pest identification and chemical regulations, safety, and pesticide application. Upon completion, students should be able to meet the requirements for North Carolina Commercial Pesticide Ground Applicators license. Students will apply the Integrated Pest Management Model in plant management.

HOR 166. Soils and Fertilizers. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the physical and chemical properties of soils and soil fertility and management. Topics include soil formation; classification; physical, chemical, and biological properties (including microorganisms); testing; and fertilizer application. Upon completion, students should be able to analyze, evaluate, and properly amend soils/media according to sustainable practices.

HOR 168. Plant Propagation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a study of sexual and asexual reproduction of plants. Emphasis is placed on seed propagation, grafting, stem and root propagation, micro-propagation, and other propagation techniques. Upon completion, students should be able to successfully propagate ornamental plants.

HOR 170. Horticulture Computer Application. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programs as they apply to the horticulture industry. Emphasis is placed on applications of software for plant identification, design and irrigation. Upon completion, students should be able to use computer programs in horticultural situations. Students will create a CAD drawing of a landscape. Prerequisites: Take HOR 112
HOR 213. Landscape Design II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers residential and commercial landscape design, cost analysis, and installation. Emphasis is placed on job cost estimates, installation of the landscape design, and maintenance techniques. Upon completion, students should be able to read landscape design blueprints, develop cost estimates, and implement the design.

HOR 215. Landscape Irrigation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic irrigation design, layout, and installation. Topics include site analysis, components of irrigation systems, safety, types of irrigation systems, and installation techniques. Upon completion, students should be able to design and install basic landscape irrigation systems.

HOR 217. Landscape Management II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides additional opportunities to design plans, write contracts, and present proposals. Emphasis is placed on the development, pricing, and presentation of proposals and additional exploration of cultural applications. Upon completion, students should be able to analyze a property, develop a management plan, and price and present that plan.

HOR 225. Nursery Production. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers all aspects of nursery crop production. Emphasis is placed on field production and covers soils, nutrition, irrigation, pest control, and harvesting. Upon completion, students should be able to produce a marketable nursery crop.

HOR 235. Greenhouse Production. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the production of greenhouse crops. Emphasis is placed on product selection and production based on market needs and facility availability, including record keeping. Upon completion, students should be able to select and make production schedules to successfully produce greenhouse crops.

HOR 245. Horticultural Specialty Crops. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the techniques and requirements for the production of horticultural crops of special or local interest. Topics include development of a local market, proper varietal selection, cultural practices, site selection, and harvesting and marketing practices. Upon completion, students should be able to choose, grow, and market a horticultural crop of special or local interest.

HOR 251. Insects & Diseases. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces insects and diseases of economic importance to horticultural crops. Topics include insect life cycles and identifying characteristics; plant diseases, including their signs and symptoms; control methods; and insect scouting for IPM. Upon completion, students should be able to demonstrate an understanding of insect and disease identification, collection, and control.

HOR 253. Turfgrass. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers information and skill development necessary to establish and manage landscape turfgrasses. Topics include grass identification, establishment, cultural requirements, application of control products, fertilization, and overseeding techniques. Upon completion, students should be able to analyze a landscape site and determine those cultural and physical activities needed to establish or manage a quality turf.

HOR 255. Interiorscapes. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers plant selection, design, and management for interior settings. Topics include tropical plant identification, cultural requirements, insect and disease identification and control, and design and management requirements for interior plants. Upon completion, students should be able to design, install, and manage plants in interior settings.

HOR 257. Arboriculture Practices. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the culture and maintenance of trees and shrubs. Topics include fertilization, pruning, approved climbing techniques, pest control, and equipment use and safety. Upon completion, students should be able to properly prune trees and shrubs and perform arboricultural practices.

HOR 260. Plant Materials II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, culture requirements, and landscape uses. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

HOR 265. Advanced Plant Materials. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers important landscape plants. Emphasis is placed on identification, plant nomenclature, growth characteristics, cultural requirements, and landscape uses. Upon completion, students should be able to correctly select plants for specific landscape uses.
Prerequisites: Take HOR 260 or HOR 160

HOR 268. Advanced Propagation. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers applied production techniques for asexual and sexual plant propagation. Emphasis is placed on the major accepted methods of asexual propagation and sexual propagation of woody ornamental plants, with evaluation of all initiated propagation. Upon completion, students should be able to successfully propagate a variety of plant materials utilizing methods covered in the course.

HOR 273. Horticultural Management & Marketing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the steps involved in starting or managing a horticultural business. Topics include financing, regulations, market analysis, employer/employee relations, formulation of business plans, and operational procedures in a horticultural business. Upon completion, students should be able to assume ownership or management of a horticultural business.

HOR 293. Selected Topics in Horticulture. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on the subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.
Hotel & Restaurant Management (HRM)

HRM 110. Introduction to Hospitality and Tourism. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course covers the growth and progress of the hospitality industry. Topics include tourism, lodging, resorts, gaming, restaurants, foodservice and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist within the hospitality industry.

HRM 120. Front Office Procedures. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services. This is a computer-based class requiring basic computer competency.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 125. Etiquette for Hospitality. 1.0 Credit. Class-1.0, Lab-0.0, Work-0.0
This course covers social skills needed to effectively interact within organizational and customer situations. Topics include general social manners, personal appearance, table manners, restaurant and meeting etiquette, and business interaction. Upon completion, students should be able to function with confidence in various social, cultural, and professional situations.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 140. Legal Issues-Hospitality. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, relevant torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system and the concepts necessary to prevent or minimize organizational liability.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 150. Training for Hospitality. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course introduces techniques and methodology involved in developing training programs. Topics include job specification/description and breakdown, current and traditional training methods, coaching, evaluation, and management development. Upon completion, students should be able to produce job specifications, descriptions and breakdowns, and conduct technical training.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 200. Cost Control-Food and Beverage. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course introduces controls and accounting procedures as applied to costs in the hospitality industry. Topics include reports, cost control, planning and forecasting, control systems, financial statements, operational efficiencies, labor controls and scheduling. Upon completion, students should be able to demonstrate an understanding of food, beverage, and labor cost control systems for operational troubleshooting and problem solving.

Prerequisites: Take CUL 111 MAT 115 with a minimum grade of C

HRM 220. Cost Control-Food and Beverage. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course introduces the management of beverages served in hospitality operations. Topics include history and trends; service, procurement and storage; knowledge and control of wines and fermented/distilled beverages; and non-alcoholic beverages, coffees, and teas. Upon completion, students should be able to demonstrate an understanding of responsible alcohol service and the knowledge of beverages consumed in a hospitality operation.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 225. Club & Resort Management. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include operational efficiencies, resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 230. Club & Resort Management. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course covers planning, organizing, directing, and analyzing the results of marketing programs for the hospitality industry. Emphasis is placed on target marketing, marketing mix, analysis, product and image development, use of current media, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to apply the marketing process as it relates to the hospitality industry.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 240. Marketing for Hospitality. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course covers planning, organizing, directing, and analyzing the results of marketing programs for the hospitality industry. Emphasis is placed on target marketing, marketing mix, analysis, product and image development, use of current media, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to apply the marketing process as it relates to the hospitality industry.

Prerequisites: Take CUL 111 with a minimum grade of C

HRM 245. Human Resource Management-Hospitality. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course introduces controls and accounting procedures as applied to costs in the hospitality industry. Topics include reports, cost control, planning and forecasting, control systems, financial statements, operational efficiencies, labor controls and scheduling. Upon completion, students should be able to demonstrate an understanding of food, beverage, and labor cost control systems for operational troubleshooting and problem solving.

Prerequisites: Take CUL 111 MAT 115 with a minimum grade of C

HRM 250. Management Problems-Hospitality. 3.0 Credits. Class-3.0, Lab-0.0, Work-0.0
This course is designed to introduce students to timely issues within the hospitality industry and is intended to move students into a managerial mindset. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to demonstrate knowledge of how hospitality management principles may be applied to real challenges facing industry managers.

Prerequisites: Take HRM 110
Human Services (HSE)

HSE 110. Introduction to Human Services. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

HSE 112. Group Process I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

HSE 120. Interpersonal Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the interpersonal and communication skills used in helping relationships and professions. Topics include self-understanding; growth techniques; assertive, passive, and aggressive behaviors; and effective communications in the helping role. Upon completion, students should be able to demonstrate skills for effective communications in helping relationships which promote understanding of self, other people, and personal growth.

HSE 123. Interviewing Techniques. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

HSE 125. Counseling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

HSE 127. Conflict Resolution. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

HSE 210. Human Services Issues. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

HSE 212. Group Process II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of the study of interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to demonstrate their ability to communicate with others and facilitate communications between others.

HSE 220. Case Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services. Prerequisites:
• Take HSE 112 HSE 120 with a minimum grade of C

HSE 225. Crisis Intervention. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

HSE 227. Children & Adolescents in Crisis. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the crises affecting children and adolescents in contemporary society. Emphasis is placed on abuse and neglect, suicide and murder, dysfunctional family living, poverty, and violence. Upon completion, students should be able to identify and discuss intervention strategies and available services for the major contemporary crises affecting children and adolescents.

HSE 242. Family Systems. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts of family structure as a system and includes the impact of contemporary society on the family. Topics include systems theory, family structure, blended families, divorce, adoption, and the elderly. Upon completion, students should be able to demonstrate an understanding of families as a system and the impact of change on family structure.

Humanities (HUM)

HUM 115. Critical Thinking. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites:
• Take ENG 111 with a minimum grade of C
HUM 120. Cultural Studies. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the distinctive features of a particular culture. Topics include art, history, music, literature, politics, philosophy, and religion. Upon completion, students should be able to appreciate the unique character of the study culture.

HUM 130. Myth in Human Culture. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

HUM 160. Introduction to Film. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

Prerequisites:
• Take ENG 111 with a minimum grade of C

HUM 211. Humanities I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind’s answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from ancient through early modern times. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in Humanities/Fine Arts.

Prerequisites: Take ENG 111 with a minimum grade of C

HUM 212. Humanities II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the humanities as a record in literature, music, art, history, religion, and philosophy of humankind’s answers to the fundamental questions of existence. Emphasis is placed on the interconnectedness of various aspects of cultures from early modern times to the present. Upon completion, students should be able to identify significant figures and cultural contributions of the periods studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

Prerequisites: Take ENG 111 with a minimum grade of C

Hydraulics (HYD)

HYD 110. Hydraulics/Pneumatics I. 0.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD 112. Hydraulics-Medium and Heavy Duty. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

HYD 121. Hydraulics/Pneumatics II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of HYD 110 and provides further investigation into fluid power systems. Topics include advanced system components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, application, operation, and maintenance of fluid power components and systems.

HYD 134. Hydraulic/Hydrostatic Construction. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the hydraulic/hydrostatic components of construction equipment hydraulics and power trains. Topics include testing, adjusting, repair, and replacement of components that are applied to construction equipment hydraulics and transmissions along with other related topics. Upon completion, students should be able to use proper diagnostic procedures and identify, repair, and replace hydraulic and hydrostatic systems on construction equipment.

HYD 210. Advanced Hydraulics. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced hydraulic systems. Emphasis is placed on advanced hydraulic systems and components, troubleshooting, and other related topics. Upon completion, students should be able to demonstrate an understanding of the installation, application, operation, and maintenance of hydraulic components and systems.

Industrial Science (ISC)

ISC 110. Workplace Safety. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

ISC 112. Industrial Safety. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.
ISC 115. Construction Safety. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

ISC 120. Industrial Ecology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts and tools used for estimating business costs and environmental risks incurred through the lifetime of projects and associated environmental regulations. Topics include performance audits, examining inputs and outputs of materials and energy, and the associated environmental impacts created within the context of business operations. Upon completion, students should be able to demonstrate an understanding of performance audits and their use to ensure efficiency, quality control, and environmental protection.

ISC 131. Quality Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study and analysis of the aspects and implications of quality management that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

ISC 132. Manufacturing Quality Control. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC 211. Production Planning. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces concepts and techniques of production planning and control. Topics include forecasting, purchasing and inventory control, and production capacity/planning/control, including routing and scheduling. Upon completion, students should be able to apply these concepts and techniques to industrial problems dealing with production planning.

ISC 212. Metrology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles and techniques of modern practical metrology and inspection methods. Topics include precision, accuracy, standards, and calibration. Upon completion, students should be able to perform various roles within a metrology system.

ISC 220. Lean Manufacturing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the concept of lean manufacturing as a means of waste reduction. Topics include the examination of manufacturing operations and the incorporation of lean techniques to reduce waste, cost, time, and materials in manufacturing processes. Upon completion, students should be able to demonstrate an understanding of lean manufacturing systems and how they benefit the environment and business.

ISC 255. Engineering Economy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the process of economic evaluation of manufacturing industrial alternatives such as equipment selection, replacement studies, and cost reduction proposals. Topics include discounted cash flows, time value of money, income tax considerations, internal rates of return, and comparison of alternatives using computer programs. Upon completion, students should be able to analyze complex manufacturing alternatives based on engineering economy principles.

ISC 292. Selected Topics in Manufacturing Engineering Technology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0

ISC 293. Selected Topics in Manufacturing Engineering Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0

Information Systems (CIS)

CIS 103. Data Entry Operations. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers computer center organization and operation, duties of data entry operators, data entry techniques and equipment, and data entry terminology. Emphasis is placed on speed and accuracy requirements for data entry operations using microcomputers. Upon completion, students should be able to accurately and quickly enter data, use correct terminology and equipment, and carry out all appropriate duties. This course is restricted to diploma and/or certificate programs.

CIS 110. Introduction to Computers. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

Prerequisites: Complete one of the following options:
- Take RED 080 ENG 080 with a minimum grade of C
- Take ENG 085 ENG 085A with a minimum grade of C
- Take EFL 074 EFL 094 with a minimum grade of C
- Take ENG 111 with a minimum grade of C
- Take CIS 111 with a minimum grade of C

CIS 111. Basic PC Literacy. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.
CIS 115. Intro to Programming & Logic. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces computer programming and problem solving in a structured programming environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to design and implement algorithmic solutions in a programming language.
Prerequisites: Complete one of the following options:
- Take MAT 060 MAT 070 with a minimum grade of C
- Take MAT 060 MAT 080 with a minimum grade of C
- Take MAT 060 MAT 090
- Take MAT 095 with a minimum grade of C
- Take MAT 120 with a minimum grade of C
- Take MAT 121 with a minimum grade of C
- Take MAT 161 with a minimum grade of C
- Take MAT 171 with a minimum grade of C
- Take MAT 175 with a minimum grade of C
- Take DMA 010 DMA 020 DMA 030 DMA 040

CIS 155. Database Theory/Analysis. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces database design theories and analyses. Emphasis is placed on data dictionaries, normalization, data integrity, and data modeling. Upon completion, students should be able to design normalized database structures which exhibit data integrity.

CIS 162. MM Presentation Software. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to integrate visual and audio resources using presentation software in a simple interactive multimedia project. Emphasis is placed upon design and audience considerations, general prototyping, and handling of media resources. Upon completion, students should be able to demonstrate an original interactive multimedia presentation implementing all of these resources in a professional manner.

CIS 196. Seminar in Information Systems. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0

CIS 245. Operating System - Multi-User. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course includes operating systems concepts for multi-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating system functions in a multi-user environment.

CIS 282. Network Technology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines concepts of network architecture. Topics include various network types, topologies, transmission methods, media and access control, the OSI model, and the protocols which operate at each level of the model. Upon completion, students should be able to design a network based on the requirements of a company.

Information Systems Security (SEC)

SEC 110. Security Concepts. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

SEC 150. Secure Communications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPSec. Upon completion, students should be able to implement secure data transmission technologies.

SEC 160. Security Administration I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.

SEC 170. Small Office/Home Office Security. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces security principles and topics related to the small office/home office networking environment. Topics include network topologies, network protocols, security issues, and best practices for SOHO environments. Upon completion, students should be able to design, setup, secure, and manage a small office/home office network. This course is restricted to the Information Systems Security/Operating Systems curriculum.

SEC 210. Intrusion Detection. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.
Prerequisites: Take SEC 160
Take SEC 220 SEC 150

SEC 220. Defense-in-Depth. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the concepts of defense-in-depth, a security industry best practice. Topics include firewalls, backup systems, redundant systems, disaster recovery, and incident handling. Upon completion, students should be able to plan effective information security defenses, backup systems, and disaster recovery procedures.
SEC 230. Attack Methodology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the student with an in-depth look at common Internet, network, and host-based attack methodologies. Topics include attack methods such as social engineering, spoofing, denial of service, man-in-the-middle, session hijacking, password cracking, malicious code, and web hacking techniques. Upon completion, students should be able to generate anomalous network traffic, identify common network attack patterns, and perform penetration testing. This course is restricted to the Information Systems Security/Operating Systems curriculum.

SEC 240. Wireless Security. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces security principles and topics related to the wireless networking environment. Topics include network topologies, network protocols, security issues, and best practices for wireless environments. Upon completion, students should be able to design, setup, manage, and secure a wireless network.

SEC 270. Secure Routing/Firewalls. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the principles of securing networks using routers and firewalls. Topics include networking protocols, threat mitigation, firewall configuration, authentication, authorization, intrusion detection, encryption, IPSec, VPNs, and remote access technologies. Upon completion, students should be able to design internal networks using router and firewall technologies. This course is restricted to the Information Systems Security/Security Hardware curriculum.

SEC 275. Advanced Firewalls. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced topics in securing networks using firewalls. Topics include networking protocols, firewall status and configuration; syslog configuration; security levels; NAT/PAT; access control lists; authentication, authorization and accounting; and remote access. Upon completion, students should be able to design and manage firewall technologies. This course is restricted to the Information Systems Security/Security Hardware curriculum.

SEC 289. Security Capstone Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides the student the opportunity to put into practice all the skills learned to this point. Emphasis is placed on security policy, process planning, procedure definition, business continuity, and systems security architecture. Upon completion, students should be able to design and implement comprehensive information security architecture from the planning and design phase through implementation. This course is restricted to the Information Systems Security, the Information Systems Security/Operating Systems, and the Information Systems Security/Security Hardware curriculums.

International Business (INT)

INT 110. International Business. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 111 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

INT 180. Travel Study Abroad. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study.

INT 210. International Trade. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of U.S trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace.
Prerequisites: Take INT 110

INT 220. International Economics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the forces and criteria for the development of a new international economic order. Emphasis is placed on balance of payments, foreign exchange rates and their determination, International Monetary System, and arguments for and against free trade and protectionism. Upon completion, students should be able to describe economic principles and concepts of international trade. This course is a unique requirement of the International Business concentration in the Business Administration program.
Prerequisites:
• Take INT 110

373
**INT 230. International Law. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organizations in international trade, establishment of treaties, economic areas, and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions. This course is a unique requirement of the International Business concentration in the Business Administration program.

Prerequisites:
- Take ASL 212

**IPP 111. Introduction to Interpretation. 3.0 Credits.** Class-3.0. Lab-0.0. Work-0.0

This course provides an orientation to the field of interpreting, interpretation models, cognitive processes associated with interpretation, professional ethical standards, employment opportunities, and working conditions. Topics include specialized jargon, code of ethics, theories, interpreter assessments/qualifications, and protocol associated with various settings. Upon completion, students should be able to explain the rationale for placement of interpreters and apply ethical standards to a variety of working situations.

Prerequisites: Take ENG 111 with a minimum grade of C

**IPP 112. Comparative Cultures. 3.0 Credits.** Class-3.0. Lab-0.0. Work-0.0

This course introduces various cultural attributes and how they impact the consumers and the interpreting process. Topics include value systems of deaf and non-deaf individuals, enculturation stages, sociolinguistic continuum of language use within the deaf community, and cross-cultural management. Upon completion, students should be able to compare deaf and non-deaf cultures and discuss how attitudes impact communication interactions and interpreting.

Prerequisites: Take ASL 212 with a minimum grade of C

**IPP 130. Analytical Skills for Interpreting. 3.0 Credits.** Class-1.0. Lab-4.0. Work-0.0

This course is designed to improve cognitive processes associated with interpreting, listening, short-term memory, semantic equivalence, visual/auditory processing, thought organization, and logic. Emphasis is placed on developing skills necessary to generate equivalent messages between ASL and English. Upon completion, students should be able to consecutively interpret non-technical, interactive messages between ASL and English.

Prerequisites: Take ASL 212 with a minimum grade of C

**IPP 152. ASL/English Translation. 3.0 Credits.** Class-3.0. Lab-0.0. Work-0.0

This course provides a study of the component parts of a cultural scheme and the manner in which ASL and English differ. Emphasis is placed on analyzing, discussing, and translating basic ASL and English texts. Upon completion, students should be able to discuss and apply techniques of cross-cultural communication and translation between deaf and non-deaf communities.

Prerequisites:
- Take ASL 112 ASL 212 with a minimum grade of C

**IPP 153. Introduction to Discourse Analysis. 3.0 Credits.** Class-1.0. Lab-4.0. Work-0.0

This course introduces discourse types and functions and specialized vocabulary and examines the specific nature of ASL discourse. Emphasis is placed on applying and practicing a model of analysis utilizing specialized vocabulary. Upon completion, students should be able to utilize specialized vocabulary and demonstrate ASL discourse features.

Prerequisites:
- Take ASL 112 ASL 212 with a minimum grade of C

**IPP 161. Consecutive Interpreting. 5.0 Credits.** Class-2.0. Lab-6.0. Work-0.0

This course introduces simultaneous ASL/English interpreting through a variety of situations which occur during basic expository presentations. Emphasis is placed on interpreting texts which serve an informational, hortatory, and/or procedural function. Upon completion, students should be able to apply the appropriate linguistic and/or cultural adjustments required to generate equivalent messages.

Prerequisites: Take IPP 161 with a minimum grade of C

Corequisites: IPP 240

**IPP 221. Simultaneous Interpreting I. 5.0 Credits.** Class-2.0. Lab-6.0. Work-0.0

This course develops intellectual and ethical decision-making abilities and considers common ethical dilemmas that arise within the interpreting process. Upon completion, students should be able to discuss and apply the principles of the protocol of consecutive interpreting.

Prerequisites: Take IPP 152 IPP 153 with a minimum grade of C

**IPP 222. Simultaneous Interpreting II. 5.0 Credits.** Class-2.0. Lab-6.0. Work-0.0

This course provides additional experience in interpreting a variety of situations which occur during basic expository presentations. Emphasis is placed on analyzing expository texts, identifying registers, and applying principles of the protocol of interpreting. Upon completion, students should be able to apply the appropriate linguistic and cultural adjustments necessary to achieve an equivalent register in the interpretation.

Prerequisites: Take IPP 221 IPP 240 with a minimum grade of C

**IPP 240. Ethical Standards and Practices. 3.0 Credits.** Class-3.0. Lab-0.0. Work-0.0

This course develops intellectual and ethical decision-making abilities and considers common ethical dilemmas that arise within the interpreting process. Topics include a model of ethical/intellectual development and the application of the model to interpreting practices. Upon completion, students should be able to discuss ethical resolution to various case studies and apply recognized principles of professional behavior to the interpreting process.

**IPP 245. Educational Interpreting Issues. 3.0 Credits.** Class-3.0. Lab-0.0. Work-0.0

This course provides an overview of educational interpreting in the US and discusses recent trends in the education of deaf students. Topics include history of deaf education, current employment practices and requirements for educational interpreters. Upon completion, students should be able to discuss current issues, become familiar with evaluation practices, and apply professional/ethical standards to the interpreting role.

Prerequisites: Take IPP 111 ASL 212 with a minimum grade of C
Journalism (JOU)

JOU 110. Introduction to Journalism. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents a study of journalistic news, feature, and sports writing. Emphasis is placed on basic news writing techniques and related legal and ethical issues. Upon completion, students should be able to gather, write, and edit news, feature, and sports articles. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take ENG 111 with a minimum grade of C

JOU 216. Writing for Mass Media. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is an introduction to news writing for newspapers and other print media including the techniques of news gathering, reporting, and interviewing. Emphasis is placed on basic methods of gathering information, conducting interviews, organizing a story, writing leads, writing clear, concise copy, and upon developing research skills. Upon completion, students should be able to write clear, concise, accurate, complete, balanced and readable news stories according to guidelines set by industry standards.
Prerequisites: Take ENG 111 with a minimum grade of C

JOU 217. Feature/Editorial Writing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the basics of persuasive writing for community newspapers and other print media. Emphasis is placed on writing features, reviews, and editorials including audience analysis, appropriate language, effective supporting details, completeness, and accuracy. Upon completion, students should be able to write effective feature stories, reviews, and editorials.
Prerequisites: Take ENG 111
Take JOU 110

JOU 242. Introduction to Multimedia. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is an introduction to the basic formatting skills necessary to create messages for the multimedia environment, such as web-based and other digital formats. Emphasis is placed on the use of computers to present and combine text, graphics, audio, and video. Upon completion, students should be able to create state-of-the-art multimedia presentations. This course has been approved to satisfy the Comprehensive Articulation Agreement as a premajor and/or elective course requirement.

Landscape Architecture Technol (LAR)

LAR 111. Introduction to Landscape Architecture Technology. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces basic architectural drafting techniques, lettering, and use of architectural and engineering scales. Topics include creating landscape architectural plans, sections and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum landscape architectural standards.

LAR 113. Residential Landscape Design. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
The course covers the creation of residential landscape design working drawings. Topics include residential plans, elevation, sections, plant selection/lists, and other related topics. Upon completion, students should be able to prepare a set of residential landscape working drawings which are within accepted architectural standards.

LAR 120. Sustainable Development. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to sustainable practices in site design and land development. Topics include conservation subdivision design, transportation issues, urban planning, water conservation, rain gardens, alternative technologies, permaculture design, low impact design, and grey water systems. Upon completion, students should be able to demonstrate techniques and procedures used for mitigating the impact of development on the environment.

LAR 210. Principles of Landscape Architecture. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the overall principles of landscape design. Topics include principles of landscape design; installation, maintenance, and cost estimates; landscape plans, elevations, and sections; plant selection/lists; and other related topics. Upon completion, students should be able to prepare a simple set of landscape working drawings which are within accepted architectural standards.

LAR 221. Landscape CAD. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces CAD landscape architecture design techniques. Emphasis is placed on using CAD landscape software to create landscape architecture plants, sections, and details and reprographic techniques. Upon completion, students should be able to prepare a set of working drawings and print scaled drawings within minimum landscape architectural standards.

LAR 242. Planning & Environment. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the historical development of urban and rural environmental problems and issues. Emphasis is placed on governmental response to environmental issues, built and natural environments, historical conflicts, and attempts to produce planning compatibility. Upon completion, students should be able to demonstrate an understanding of the importance of considering natural resources when making political and planning decisions.

LAR 250. Survey of LAR. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the historical trends in landscape architectural forms. Emphasis is placed on landscape architectural history and current trends. Upon completion, students should be able to demonstrate an understanding of significant historical and current landscape architectural styles.
Legal Education (LEX)

LEX 110. Intro to Paralegal Study. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the paralegal profession and the legal system, and an emphasis is placed on the role of professional and legal ethics. Topics include regulations, ethics, case analysis, legal reasoning, career opportunities, professional organizations, terminology and other related topics. Upon completion, students should be able to identify the role of a paralegal and the skills required of paralegals.
Prerequisites: Take ENG 111 with a minimum grade of C

LEX 120. Legal Research/Writing I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 121. Legal Research/Writing II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.
Prerequisites:
• Take LEX 120 ENG 111 with a minimum grade of C

LEX 130. Civil Injuries. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, students should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 140. Civil Litigation I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the structure of the legal system and the rules governing civil litigation. Topics include jurisdiction state and federal rules of civil procedure and evidence. Upon completion, students should be able to assist an attorney in pre-litigation matters and preparation of pleadings and motions.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 141. Civil Litigation II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced topics in the civil litigation process. Topics include motions, discovery, and trial and appellate procedures. Upon completion, students should be able to assist an attorney in preparing and organizing documents for trial, settlement and post-trial practice.
Prerequisites:
• Take LEX 140 ENG 111 with a minimum grade of C

LEX 150. Commercial Law I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 160. Criminal Law & Procedure. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 170. Administrative Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, worker’s compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 180. Case Analysis & Reasoning. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the techniques of reading and applying legal opinions and the skills of case analysis. Emphasis is placed on the components of opinions and on types of legal writing. Upon completion, students should be able to read, analyze, and brief opinions and prepare legal memoranda, briefs, and other legal documents.
Prerequisites:
• Take ENG 111 with a minimum grade of C

Corequisites: LEX 120
LEX 192. Selected Topics in Insurance Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.
Prerequisites: Take LEX 110 LEX 130 LEX 140 with a minimum grade of C

LEX 210. Real Property I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics. Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.
Prerequisites:
• Take LEX 210 with a minimum grade of C

LEX 211. Real Property II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.
Prerequisites:
• Take LEX 210 with a minimum grade of C

LEX 220. Corporate Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.
Prerequisites:
• Take LEX 211 with a minimum grade of C

LEX 240. Family Law. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.
Prerequisites:
• Take LEX 111 with a minimum grade of C

LEX 250. Wills, Estates, & Trusts. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 260. Bankruptcy and Collections. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.
Prerequisites: Take LEX 111 with a minimum grade of C

LEX 270. Law Office Management/Technology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computersystems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to establish and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LEX 271. Law Office Writing. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basics of writing for the law office including the drafting of general correspondence, the briefing of cases, and the preparation of settlement brochures. Emphasis is placed on legal vocabulary in the context of letter writing, briefing judicial opinions, and the preparation of the settlement brochure. Upon completion, students should be able to draft letters to clients, opposing counsel, government entities, and insurance companies and prepare the settlement brochure.
Prerequisites: Take LEX 120 with a minimum grade of C

LEX 280. Ethics & Professionalism. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification and other related topics. Upon completion, students should be able to understand the paralegal’s role in the ethical practice of law.
Prerequisites:
• Take ENG 111 with a minimum grade of C

LEX 281. Intellectual Property. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the basics of intellectual property theory, and the paralegal’s practical role. Topics include copyright, patent and trademark theory which emphasizes statutory creation and property rights. Upon completion, students should be able to discuss the creation and sustainability of copyrights, patents and trademarks.
Prerequisites: Take ALL LEX 110, LEX 120, and LEX 140
LEX 282. Immigration Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers both theoretical and practical application of immigration law to everyday scenarios and the paralegal’s role in the process. Topics include administrative agency formation, the role of INS and the implication of the decisions on the immigration process. Upon completion, students should be able to discuss administrative agencies, the relationship of the INS to the governmental structure and immigration case law.
Prerequisites: Take All: LEX 110, LEX 120, and LEX 140

LEX 283. Investigation. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers various aspects of civil and criminal investigation. Topics include locating witnesses, interviewing techniques, obtaining records, sketching and photographing accident scenes, collecting and preserving evidence, and preparation of exhibits for trial. Upon completion, students should be able to locate witnesses, prepare questionnaires, interview witnesses, obtain criminal/motor vehicle/medical/accident records, sketch scenes, and prepare exhibits.
Prerequisites: Take LEX 110 LEX 120 LEX 140 with a minimum grade of C

LEX 285. Workers’ Compensation Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the process of initiating and handling workers’ compensation claims. Emphasis is placed on reviewing and drafting relevant Industrial Commission forms. Upon completion, students should be able to interview clients, gather information, and draft documents related to workers’ compensation claims.
Prerequisites: Take ENG 111 with a minimum grade of C

LEX 289. U.S. Constitutional Law. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the creation, content, and interpretation of the Constitution of the United States and its amendments as it relates to civil law and practice. Topics include constitutional formation, structure, court interpretation and the implication of legal decision for legal practitioners. Upon completion, students should be able to discuss the formation of the Constitution, its interpretation and application to the practice of civil law.
Prerequisites: Take All: LEX 110, LEX 120, and LEX 140
Take LEX 110 LEX 120 LEX 140 with a minimum grade of C

Logistics Management (LOG)

LOG 110. Introduction to Logistics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of logistics. Topics include traffic management, warehousing, inventory control, material handling, global logistics, and the movement and storage of goods from raw materials sources to end consumers. Upon completion, students should be able to identify the different segments of logistics and use the terminology of the industry.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A
• Take ENG 095 ENG 095A
• Take EFL 111 EFL 112
• Take ENG 090 ENG 090A
• Take RED 090 EFL 111
• Take ENG 111
• Take DRE 098

LOG 125. Transportation Logistics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the role and importance of the transportation industry. This is an overview of transportation emphasizing its environmental and sociological aspects, economic impact, services, regulatory guidelines, policies, and its future. Upon completion, students should be able to identify modes of transportation, interpret governing regulations, and describe the principles and terminology used in the transportation industry.
Prerequisites: Complete one of the following options:
• Take DRE 098
• Take RED 090 ENG 090 ENG 090A
• Take ENG 095 ENG 095A
• Take EFL 111 EFL 112
• Take ENG 090 ENG 090A
• Take RED 090 EFL 111
• Take ENG 111

LOG 210. Fleet Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the management of transportation, fleet operations, and safety. Emphasis is placed on dot safety regulations in the hiring, training, and supervision of drivers in transportation. Upon completion, students should be able to write a safety program for drivers involved in interstate commerce following d.O.T. Regulations.

Low Impact Development (LID)

LID 111. Low Impact Development Design Principles. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces design principles of Low Impact Development (LID) which incorporate sustainable development and natural resources management as an alternative to traditional site design. Topics include science-based interdisciplinary design practices including tools from civil and environmental engineering, hydrology, horticulture, ecology, and architecture. Upon completion, students should be able to use multifaceted approaches to recommend site-specific LID design concepts for residential, public, and commercial sites.
Machining (MAC)

MAC 111. Machining Technology I. 6.0 Credits. Class-2.0. Clinical-0.0. Lab-12.0. Work-0.0
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 111AB. Machining Technology I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 111BB. Machining Technology I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 114. Introduction to Metrology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 121. Introduction to CNC. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

MAC 122. CNC Turning. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124. CNC Milling. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 131. Blueprint Reading-Machining I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

MAC 132. Blueprint Reading-Machining II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

MAC 142. Machining Applications II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides instruction in the wide variety of processes associated with machining. Topics include safety, equipment set-up, holding fixtures, tooling, cutting speeds and depths, metal properties, and proper finishes. Upon completion, students should be able to safely demonstrate advanced machining operations, accurately measure components, and produce accurate components with a proper finish.

MAC 143. Machining Applications III. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides instruction in the field of advanced machining. Emphasis is placed on creating complex components, close-tolerance machining, precise measurement, and proper equipment usage. Upon completion, students should be able to demonstrate the ability to produce an accurately machined component with a quality finish using the proper machining process.

MAC 151. Machining Calculations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

MAC 152. Advanced Machining Calculations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

MAC 192. Selected Topics in Machining. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.
MAC 222. Advanced CNC Turning. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.
Prerequisites: Take MAC 121 with a minimum grade of C

MAC 224. Advanced CNC Milling. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.
Prerequisites: Take MAC 121 with a minimum grade of C

MAC 228. Advanced CNC Processes. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced programming, setup, and operation of CNC turning centers and CNC milling centers. Topics include advanced programming formats, control functions, program editing, and part production and inspection. Upon completion, students should be able to manufacture complex parts using CNC turning and milling centers.
Prerequisites: Take MAC 121 with a minimum grade of C

MAC 231. Cam: Computer Numerical Control Turning. 3.0 Credits.
Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces computer numerical control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, including machine selection, tool selection, operational sequence, speed, feed, and cutting depth. Students will write transfer machine code from CAM graphics to the CNC turning center.
Prerequisites: Take MAC 121 with a minimum grade of C

MAC 232. CAM: Computer Numerical Control Milling. 3.0 Credits.
Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.
Prerequisites: Take MAC 121 with a minimum grade of C

MAC 234. Advanced Multi-Axis Machining. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course includes multi-axis machining using machining centers with multi-axis capabilities. Emphasis is placed on generation of machining center input with a CAM system and setup of pallet changer and rotary system for multi-axis machining fixtures. Upon completion, students should be able to convert CAD to output for multi-axis machining centers, including tooling, setup, and debugging processes.
Prerequisites: Take MAC 232 or DFT 154 with a minimum grade of C

MAC 292. Selected Topics in Machining. 2.0 Credits. Class-2.0.
Clinical-0.0. Lab-6.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Marketing and Retailing (MKT)

MKT 110. Principles of Fashion. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the terminology and components of the fashion industry. Topics include the roles and responsibilities of designers, manufacturers, and retailers and an exploration of careers in the fashion industry. Upon completion, students should be able to identify economic, sociological, and psychological factors which influence fashion demands.

Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

MKT 121. Retailing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines the role of retailing in the economy. Topics include the development of present retail structure, functions performed, effective operations, and managerial problems resulting from current economic and social trends. Upon completion, students should be able to demonstrate an understanding of the basic principles of retailing.

Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 EFL 112 ENG 113 or ENG 114 with a minimum grade of C

MKT 122. Visual Merchandising. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic layout design and commercial display in retail and service organizations. Topics include an analysis of display as a visual merchandising medium and an examination of the principles and applications of display and design. Upon completion, students should be able to plan, build, and evaluate designs and displays. This course is a unique requirement of the Marketing and Retailing concentration in the Business Administration program.

Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 EFL 112 ENG 113 or ENG 114 with a minimum grade of C
MKT 123. Fundamentals of Selling. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course is designed to emphasize the necessity of selling skills in a
modern business environment. Emphasis is placed on sales techniques
involved in various types of selling situations. Upon completion, students
should be able to demonstrate an understanding of the techniques
covered.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade
  of C

MKT 125. Buying and Merchandising. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course includes an analysis of the organization for buying—what, when
and how to buy—and the principles of effective inventory and stock control.
Topics include organization for buying, analysis of buyers’ responsibilities,
pricing, inventory control, planning, cost effectiveness, and vendor
relationships. Upon completion, students should be able to demonstrate
an understanding of the concepts covered through application.

MKT 200. Advertising and Sales Promotion. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course covers the elements of advertising and sales promotion in the
business environment. Topics include advertising and sales promotion
appeals, selection of media, use of advertising and sales promotion as
a marketing tool, and means of testing effectiveness. Upon completion,
students should be able to demonstrate an understanding of the concepts
covered through application.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade
  of C

MKT 221. Consumer Behavior. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course is designed to describe consumer behavior as applied to the
exchange processes involved in acquiring, consuming, and disposing of
goods and services. Topics include an analysis of basic and environmental
determinants of consumer behavior with emphasis on the decision-making
process. Upon completion, students should be able to analyze concepts
related to the study of the individual consumer.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade
  of C

MKT 223. Customer Service. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course stresses the importance of customer relations in the business
world. Emphasis is placed on learning how to respond to complex
customer requirements and to efficiently handle stressful situations. Upon
completion, students should be able to demonstrate the ability to handle
customer relations.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade
  of C

MKT 224. International Marketing. 3.0 Credits. Class-3.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course covers the basic concepts of international marketing activity
and theory. Topics include product promotion, placement, and pricing
strategies in the international marketing environment. Upon completion,
students should be able to demonstrate a basic understanding of the
concepts covered.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade
  of C
MKT 225. Marketing Research. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results. This course is a unique concentration requirement of the marketing and retailing concentration in the business administration program.
Prerequisites:
• Take MKT 120 with a minimum grade of C
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

MKT 227. Marketing Applications. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy. This course is a unique concentration requirement of the Marketing and Retailing concentration in the Business Administration program.
Prerequisites: Take MKT 120 with a minimum grade of C

MKT 228. Service Marketing. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to define service marketing, demonstrate its importance, and note its special characteristics. Topics include basic building blocks of service marketing, distinctive aspects of services, and applications of service marketing mix. Upon completion, students should be able to demonstrate a basic understanding of the marketing mix as it applies to the service industry.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

MKT 229. Special Events Production. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the different objectives of various special events and the procedures and elements necessary for successful promotional activity. Emphasis is placed on planning, budgeting, promoting, and coordinating activities. Upon completion, students should be able to utilize the elements studied in the production of special events.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 ENG 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

MKT 230. Public Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces public relations as it affects communications, strategic planning, and management of the organization. Topics include basic principles and functions of management that guide public relations activities as applied to businesses, services, institutions, and associations. Upon completion, students should be able to perform the communications, evaluation, planning, and research activities of the public relations professional.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 ENG 112 ENG 113 or ENG 114 with a minimum grade of C

MKT 232. Social Media Marketing. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to build students’ social media marketing skills by utilizing projects that give students hands on experience implementing social media marketing strategies. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Upon completion, students should be able to use social media technologies to create and improve marketing efforts for businesses.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take DRE 098
Mathematics (MAT)

MAT 101. Applied Mathematics I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study. This course is intended for certificate and diploma programs.
Prerequisites: Take MAT 060 MAT 070 MAT 080 MAT 090 or MAT 095 with a minimum grade of C

MAT 115. Mathematical Models. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, function notation, linear functions, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently.

MAT 120. Geometry and Trigonometry. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

MAT 121. Algebra/Trigonometry I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.
Prerequisites: Complete one of the following options:
• Take MAT 070 MAT 060 with a minimum grade of C
• Take MAT 080 MAT 060 with a minimum grade of C
• Take MAT 090 MAT 060 with a minimum grade of C
• Take MAT 095 with a minimum grade of C
• Take MAT 070 with a minimum grade of C

MAT 122. Algebra/Trigonometry II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors, and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.
Prerequisites:
• Take 1 course From MAT 121 MAT 161 MAT 171 MAT 175 with a minimum grade of C

MAT 140. Survey of Mathematics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently.
Prerequisites: Complete one of the following options:
• Take MAT 070 MAT 060
• Take MAT 080 MAT 060
• Take MAT 090 MAT 060
• Take MAT 095
• Take MAT 120
• Take MAT 121
• Take MAT 161
• Take MAT 171
• Take MAT 175
• Take MAT 070 with a minimum grade of C

MAT 141. Mathematical Concepts I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include simplification, evaluation, and solving of algebraic and radical functions; complex numbers; right triangle trigonometry; systems of equations; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and to analyze and communicate results.
Prerequisites: Complete one of the following options:
• Take MAT 070 MAT 060 with a minimum grade of C
• Take MAT 080 MAT 060 with a minimum grade of C
• Take MAT 090 MAT 060 with a minimum grade of C
• Take MAT 095 with a minimum grade of C
• Take MAT 070 with a minimum grade of C

MAT 141A. Mathematical Concepts I Lab. 1.0 Credit. Class-0.0. Lab-2.0. Work-0.0
This course is a laboratory for MAT 141. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to communicate orally and in writing these basic mathematical concepts.

Central Piedmont Community College
MAT 155. Statistical Analysis. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an introduction to descriptive and inferential statistics. Topics include sampling, distributions, plotting data, central tendency, dispersion, Central Limits Theorem, confidence intervals, hypothesis testing, correlations, regressions, and multinomial experiments. Upon completion, students should be able to describe data and test inferences about populations using sample data.
Prerequisites: Complete one of the following options:
• Take MAT 080 MAT 060 with a minimum grade of C
• Take MAT 090 MAT 060 with a minimum grade of C
• Take MAT 095 with a minimum grade of C
• Take MAT 120 with a minimum grade of C
• Take MAT 121 with a minimum grade of C
• Take MAT 161 with a minimum grade of C
• Take MAT 171 with a minimum grade of C
• Take MAT 175 with a minimum grade of C
Corequisites: MAT 155A
MAT 155A. Statistical Analysis Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for MAT 155. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.
Prerequisites: Complete one of the following options:
• Take MAT 080 MAT 060 with a minimum grade of C
• Take MAT 090 MAT 060 with a minimum grade of C
• Take MAT 095 with a minimum grade of C
• Take MAT 120 with a minimum grade of C
• Take MAT 121 with a minimum grade of C
• Take MAT 161 with a minimum grade of C
• Take MAT 171 with a minimum grade of C
• Take MAT 175 with a minimum grade of C
Corequisites: Take MAT 155
MAT 161. College Algebra. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on applications involving equations and inequalities; polynomial, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction.
Prerequisites: Complete one of the following options:
• DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, and DMA 080
• MAT 060* and MAT 080
• MAT 060* and MAT 090
• MAT 095
MAT 167. Discrete Mathematics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a study of discrete mathematics with emphasis on applications. Topics include number systems, combinations/permutations, mathematical logic/proofs, sets/counting, Boolean algebra, mathematical induction, trees/graphs, and algorithms. Upon completion, students should be able to demonstrate competence in the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites:
• Take 1 course From MAT 121 MAT 161 MAT 171 MAT 175 MAT 280 with a minimum grade of C
MAT 171. Precalculus Algebra. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Will include exponential and logarithmic functions. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions.
Prerequisites: Complete one of the following options:
• Take MAT 080 MAT 060 with a minimum grade of C
• Take MAT 090 MAT 060 with a minimum grade of C
• Take MAT 095 with a minimum grade of C
• Take MAT 161 with a minimum grade of C
MAT 171A. Precalculus Algebra Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.
MAT 172. Precalculus Trigonometry. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, and vectors. Will include analytic trigonometry (graphs, equations, and identities, etc.). Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.
Prerequisites:
• Take MAT 171 with a minimum grade of C
MAT 175. Precalculus. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/ mathematics.
MAT 192. Selected Topics in Math. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

MAT 223. Applied Calculus. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.
Prerequisites:  
• Take 1 course From MAT 122 MAT 172 MAT 175 with a minimum grade of C

MAT 263. Brief Calculus. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students needing only one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results. This course has been approved to satisfy the Comprehensive Articulation Agreement core requirement in natural sciences/mathematics.
Prerequisites: Take MAT 161 MAT 171 or MAT 175
Take MAT 161 MAT 171 or MAT 175 with a minimum grade of C
Corequisites: MAT 263A

MAT 263A. Brief Calculus Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for MAT 263. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MAT 161 MAT 171 or MAT 175
Take MAT 161 MAT 171 or MAT 175 with a minimum grade of C
Corequisites: MAT 263

MAT 271. Calculus I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.
Prerequisites:  
• Take 1 course From MAT 122 MAT 172 MAT 175 with a minimum grade of C

MAT 272. Calculus II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Prerequisites:  
• Take MAT 271 with a minimum grade of C

MAT 273. Calculus III. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the calculus of several variables and is the third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solidanalytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Prerequisites:  
• Take MAT 272 with a minimum grade of C

MAT 280. Linear Algebra. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations, matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MAT 285. Differential Equations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites:  
• Take 1 course From MAT 272 MAT 273 with a minimum grade of C

Mechanical (MEC)

MEC 110. Introduction to CAD/CAM. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.
MEC 111. Machine Processes I. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to manufacture simple parts to specified tolerance.

MEC 130. Mechanisms. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

MEC 155. Environmentally Benign Manufacturing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces environmental issues involving the generation and management of hazardous materials and wastes in manufacturing operations. Topics include the analysis of manufacturing trends, pollution minimization strategies, and the advantages of incorporating a sustainable approach to manufacturing. Upon completion, students should be able to discuss analysis and modification of industrial processes in manufacturing facilities toward a sustainable end.

MEC 161. Manufacturing Processes I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and non-traditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.

MEC 172. Introduction to Metallurgy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

MEC 175. Equipment Installation. 2.0 Credits. Class-0.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers practical applications in the layout, preparation, and placement of industrial equipment including mechanical and electrical activity required to start up the equipment. Emphasis is placed on procedures for safely installing industrial equipment including start-up and debugging operations, coordination of mechanical/electrical/ instrumentation, and other discipline activities. Upon completion, students should be able to effectively perform and/or coordinate all of the activities required for the installation of industrial equipment.

MEC 180. Engineering Materials. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

MEC 210. Applied Mechanics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a study of forces, stresses, and strains acting upon mechanical components. Topics include static equilibrium; normal, shear, and bending stresses; mathematical and graphical solution techniques; and the relationship between stress and strain. Upon completion, students should be able to demonstrate proficiency in analyzing the forces, stresses, and strains common to applications in the workplace. Prerequisites: Take PHY 131 or PHY 151

MEC 250. Statics & Strength of Materials. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components. Prerequisites: Take PHY 131 PHY 151 or PHY 251 with a minimum grade of C

MEC 251. Statics. 0.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

MEC 260. Fundamentals of Machine Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamental principles of machine design. Topics include simple analysis of forces, moments, stresses, strains, friction, kinematics, and other considerations for designing machine elements. Upon completion, students should be able to analyze machine components and make component selections from manufacturers' catalogs. Prerequisites: Take MEC 210 with a minimum grade of D

MEC 265. Fluid Mechanics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications. Prerequisites: Take PHY 131 or PHY 151

MEC 267. Thermal Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamental laws of thermodynamics. Topics include work and energy, open and closed systems, and heat engines. Upon completion, students should be able to demonstrate a knowledge of the laws and principles that apply to thermal power.

MEC 270. Machine Design. 0.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the basic principles underlying design and selection of machine elements. Topics include stress analysis, selection of components, power transmission, and other design considerations. Upon completion, students should be able to identify and solve mechanical design problems by applying basic engineering principles.
MED 275. Engineering Mechanisms. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers plane motion and devices used to generate plane motion. Topics include analysis of displacement, velocity, acceleration, gears, cams, and other mechanical systems. Upon completion, students should be able to graphically and mathematically analyze a plane motion system.

MED 292. Selected Topics in Mechanical Engineering Technology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0

MED 293. Selected Topics in Mechanical Engr. Tech Engineering Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, the student should be able to demonstrate an understanding on the specific area of study.

Medical Assisting (MED)

MED 110. Orientation to Medical Assisting. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

MED 112. Orientation to Clinic Setting I. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides an early opportunity to observe and/or perform in the medical setting. Emphasis is placed on medical assisting procedures including appointment scheduling, filing, greeting patients, telephone techniques, billing, collections, medical records, and related medical procedures. Upon completion, students should be able to identify administrative and clinical procedures in the medical environment.

MED 114. Professional Interaction in Health Care. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to identify various patient behaviors encountered in the medical setting. Emphasis is placed on stressors related to illness, cultural influences, death and dying, and needs specific to patients. Upon completion, students should be able to utilize appropriate methods of verbal and nonverbal communication with empathy and impartiality.

MED 116. Introduction to Anatomy & Physiology. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic anatomy and physiology. Emphasis is placed on the relationship between body structure and function and the procedures common to health care. Upon completion, students should be able to identify body system components and functions relating this knowledge to the delivery of health care.

MED 118. Medical Law and Ethics. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

MED 120. Survey of Medical Terminology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

MED 121. Medical Terminology I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122. Medical Terminology II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

Prerequisites: Take MED 121 with a minimum grade of C

MED 130. Administrative Office Procedures I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

MED 131. Administrative Office Procedures II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

MED 138. Infection/Hazard Control. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the student to infection and hazard control procedures necessary for the healthcare worker. Topics include introduction to Microbiology, Practical Infection Control, Sterilization and Monitoring, Chemical Disinfectants, Aseptic Technique, Infectious diseases, and applicable North Carolina laws. Upon completion, students should be able to demonstrate an understanding of infectious diseases, disease transmission, infection control procedures, biohazard management, OSH standards, and applicable North Carolina laws.

MED 140. Examining Room Procedures I. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in examining room procedures.
MED 150. Laboratory Procedures I. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

MED 232. Medical Insurance Coding. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to develop coding skills. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

MED 240. Examining Room Procedures II. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures. Prerequisites: Take MED 140 with a minimum grade of C
Corequisites: MED 150

MED 260. MED Clinical Practicum. 5.0 Credits. Class-0.0. Clinical-15.0. Lab-0.0. Work-0.0
This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

MED 262. Clinical Perspectives. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED 270. Symptomatology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

MED 272. Drug Therapy. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician’s office.

MED 274. Diet Therapy/Nutrition. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the basic principles of nutrition as they relate to health and disease. Topics include basic nutrients, physiology, dietary deficiencies, weight management, and therapeutic nutrition in wellness and disease. Upon completion, students should be able to interpret clinical and dietary data and provide patient counseling and education.

MED 276. Patient Education. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

Medical Laboratory Technology (MLT)

MLT 110. Introduction to MLT. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.

MLT 111. Urinalysis and Body Fluids. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.
Prerequisites:
- Take MLT 120 with a minimum grade of C

MLT 120. Hematology/Hemostasis I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate laboratory findings with disorders.

MLT 125. Immunohematology I. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the immune system and response; basic concepts of antigens, antibodies, and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.
MLT 126. Immunology and Serology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the immune system and response and basic concepts of antigens, antibodies, and their reactions. Emphasis is placed on basic principles of immunologic and serodiagnostic techniques and concepts of cellular and humoral immunity in health and disease. Upon completion, students should be able to demonstrate theoretical comprehension and application in performing and interpreting routine immunologic and serodiagnostic procedures.

MLT 127. Transfusion Medicine. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the blood group systems and their applications in transfusion medicine. Emphasis is placed on blood bank techniques including blood grouping and typing, pretransfusion testing, donor selection and processing, and blood component preparation and therapy. Upon completion, students should be able to demonstrate theoretical comprehension and application in performing/interpreting routine blood bank procedures and recognizing/resolving common problems.
Prerequisites:
- Take MLT 126 with a minimum grade of C

MLT 130. Clinical Chemistry I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the quantitative analysis of blood and body fluids and their variations in health and disease. Topics include clinical biochemistry, methodologies, instrumentation, and quality control. Upon completion, students should be able to demonstrate theoretical comprehension of clinical chemistry, perform diagnostic techniques, and correlate laboratory findings with disorders.
Prerequisites:
- Take CHM 130 CHM 130A

MLT 140. Introduction to Microbiology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.

MLT 216. Professional Issues. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

MLT 220. Hematology/Hemostasis II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the theories and techniques used in the advanced analysis of human blood cells and hemostasis. Emphasis is placed on the study of hematologic disorders, abnormal cell development and morphology, and related testing. Upon completion, students should be able to demonstrate a theoretical comprehension and application of abnormal hematology and normal and abnormal hemostasis.
Prerequisites: Take MLT 120 with a minimum grade of C

MLT 230. Clinical Chemistry II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to supplement the biochemical and physiologic theory presented in MLT 130. Emphasis is placed on special chemistry techniques and methodologies. Upon completion, students should be able to recognize and differentiate technical and physiological causes of unexpected test results.

MLT 240. Special Clinical Microbiology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.

MLT 251. MLT Practicum I. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations. MLT Practicum I.
Prerequisites: Take MLT 110 with a minimum grade of C

MLT 267. MLT Practicum II. 8.0 Credits. Class-0.0. Clinical-24.0. Lab-0.0. Work-0.0
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT 277. MLT Practicum III. 8.0 Credits. Class-0.0. Clinical-24.0. Lab-0.0. Work-0.0
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

Music (MUS)

MUS 110. Music Appreciation. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 111. Fundamentals of Music. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 112. Introduction to Jazz. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 121. Music Theory I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 111

MUS 122. Music Theory II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 123. Music Composition. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a study of elementary forms and traditional approaches to the organization of melody, harmony, rhythm, etc. in musical composition. Emphasis is placed on using musical notation to create new musical works. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 123X2. Music Composition. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a study of elementary forms and traditional approaches to the organization of melody, harmony, rhythm, etc. in musical composition. Emphasis is placed on using musical notation to create new musical works. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 131. Chorus I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 132. Chorus II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 135. Jazz Ensemble I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity for those who play an appropriate instrument to gain experience playing in a jazz ensemble. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 136. Jazz Ensemble II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 135. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major course requirement.

MUS 137. Orchestra I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity for those who play an orchestral instrument to gain experience playing in an ensemble. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 141. Ensemble I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 141B. Ensemble I (baroque Music Consort I). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 141C. Ensemble I (intro to Early Mus Ensemble). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 141D. Ensemble I (Appalachian Dulcimer Ensemble I). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141D is Appalachian Dulcimer ensemble i.

MUS 141E. Ensemble I (early Music Consort I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141E is Early Music Consort I.

MUS 141G. Ensemble I (Guitar Ensemble I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141G is Guitar Ensemble I.
Prerequisites:
• Take MUS 161 with a minimum grade of C

MUS 141H. Ensemble I (Folk Harp Ensemble I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141H is Folk Harp ensemble i.

MUS 141P. Ensemble I (Piano Ensemble I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141P is Piano Ensemble I.

MUS 141R. Ensemble I (Recorder Ensemble I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141R is Recorder Ensemble I.

MUS 141S. Ensemble I (strings Ensemble I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to perform in any combination of instrumental, vocal, or keyboard groups of two or more. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 141S is strings ensemble I.

MUS 142. Ensemble II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 142B. Ensemble II (baroque Ensemble). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 141B

MUS 142C. Introduction to Ensemble II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 141 or MUS 141C

MUS 142D. Ensemble II (Appalachian Dulcimer Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 141D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 142D is Appalachian Dulcimer Ensemble II.
MUS 142E. Ensemble II (Early Music Consort II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 141E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 142E is Early Music Consort II with the prerequisite of Mus 141E.
Prerequisites: Take MUS 141E

MUS 142G. Ensemble II (Guitar Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of mus 141G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 142G is Guitar Ensemble II with the prerequisite of Mus 141G.
Prerequisites: Take MUS 141G

MUS 142H. Ensemble II (Folk Harp Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of mus 141H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 142H is folk harp ensemble II.

MUS 142P. Ensemble II (Piano Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 141P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 142P is Piano Ensemble II with the prerequisite of Mus 141P.
Prerequisites: Take MUS 141P

MUS 142R. Ensemble II (Recorder Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 141R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 142R is Recorder Ensemble II with the prerequisite of Mus 141R.
Prerequisites: Take MUS 141R

MUS 142X. Ensemble II. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151E. Class Music I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 151F. Class Music I (Jazz Vocal). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151G. Class Music I (beginning Guitar). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 151G is Beginning Guitar in which focus is on reading guitar music in first position, playing chords in first position, and transposition to selected keys.

MUS 151J. Class Music I Instrumental Rep 1. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151K. Class Music I (Jazz Vocal). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 151K is Jazz Vocal which will include singing solos as well as scat singing and modern 4-PART harmony.

MUS 151L. Class Music I (Guitar Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151M. Class Music I (Guitar Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151N. Class Music I (Guitar Ensemble II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Prerequisites: Take MUS 141E
MUS 151L. Class Music I Vocal Repertoire I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 151P. Class Music I (piano I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 151P is Beginning Piano in which students learn music reading skills required for simple two-Hand piano compositions in the keys of c and g major.

MUS 151S. Class Music I (sightsinging). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 151S is Singing and Accompanying with the prerequisite of Mus 151V or Mus 151I.

MUS 151V. Class Music I (voice I). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 151V is Class Voice I for beginning singers and will focus on correct posture, breathing, support for the resonance of vowels, and proper diction.

MUS 151W. Class Music I 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course provides an opportunity to learn the international phonetic alphabet (IPA) that is need sign vocal music from western classical common practice vocal literature (English & Italian).

MUS 151X. Class Music I (accompaniment). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 152. Class Music II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 152D. Class Music II (appalachian Dulcimer Ii). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of mus 151D. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152D is appalachian dulcimer II.

MUS 152E. Class Music II Preparatory Applied Music. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 152G. Class Music II (Intermediate Guitar). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of mus 151G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152G is Intermediate Guitar in which skills emphasized include improving ability to read a single line on the guitar, reading block and arpeggiated chords, and playing both a melody and arpeggiated accompaniment with the prerequisite of Mus 151G.
Prerequisites: Take MUS 151G

MUS 152H. Class Music II (folk Harp II). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of mus 151H. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152H is folk harp II.
MUS 152I. Class Music II Instrumental Repertoire I. 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  
Prerequisites: Take MUS 151

MUS 152L. Class Music II Vocal Repertoire II. 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  
Prerequisites: Take MUS 151

MUS 152P. Class Music II (Piano II). 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of Mus 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152P is Piano II in which piano compositions, scales, and chords studied will include the keys of c, g and f major, and a and d minor.  
Prerequisites: Take MUS 151P

MUS 152S. Class Music II (Sightreading—Piano). 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of Mus 151P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152S provides an opportunity to study collaborative literature and sight-reading for pianists and soloists. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as an elective course requirement. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.  
Prerequisites: Take MUS 151P

MUS 152V. Class Music II (Voice II). 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of Mus 151V. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 152V is Class Voice II in which study of the international phonetic alphabet will facilitate the performance of repertoire which will include art songs, arias, and other songs with the prerequisite of Mus 151V.  
Prerequisites: Take MUS 151V

MUS 152W. Class Music II Intro to Vocal Diction II. 1.0 Credit.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course provides an opportunity to learn the vocal music from western classical common practice vocal literature (French & German).  

MUS 152X. Class Music II 0.0 Credits.  
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  

MUS 161. Applied Music I. 2.0 Credits.  
Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on vocal technique. Upon completion, students should be able to participate in an assigned position in a college opera production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  

MUS 162. Applied Music II. 2.0 Credits.  
Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on musical/language production. Upon completion, students should be able to participate in an assigned position in a college opera production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  

MUS 173. Opera Production I. 3.0 Credits.  
Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0  
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on oral and related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  

MUS 174. Opera Production II. 3.0 Credits.  
Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0  
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on the evolution of this idiom and related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.  

MUS 210. History of Rock Music. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is a survey of Rock music from the early 1950’s to the present. Emphasis is placed on musical groups, soloists, and styles related to the evolution of this idiom and on related historical and social events. Upon completion, students should be able to identify specific styles and to explain the influence of selected performers within their respective eras. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 213. Opera and Musical Theatre. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the origins and development of opera and musical theatre from the works of Claudio Monteverdi to the present. Emphasis is placed on how the structure and components of opera and musicals effect dramaturgy through listening examples and analysis. Upon completion, students should be able to demonstrate analytical and listening skills in understanding both opera and the musical. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

MUS 214. Electronic Music I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to study and explore various electronic instruments and devices. Emphasis is placed on fundamental MIDI applications and implementation, features and application of sequences, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 215. Electronic Music II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 214. Emphasis is placed on advanced MIDI applications and implementation and continued work with sequencers, sound modules, and digital keyboards. Upon completion, students should be able to demonstrate proficiency by creation of appropriate musical projects using the equipment and techniques covered. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 217. Elementary Conducting. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic patterns and skills for conducting instrumental and vocal groups. Emphasis is placed on conducting beat patterns, expressive gestures, fermatas, accents, tempos, and rehearsal techniques. Upon completion, students should be able to demonstrate the above skills by conducting vocal and/or instrumental groups. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 221. Music Theory III. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 222. Emphasis is placed on altered and chromatic harmony, common practice era compositional techniques and forms, and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 222. Music Theory IV. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of studies begun in MUS 221. Emphasis is placed on continued study of common practice era compositional techniques and forms, 20th century practices, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 223. Band III. 1.0 Credit. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 233. Emphasis is placed on band techniques and the study of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 224. Band IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 234. Emphasis is placed on band techniques and the study and performance of a variety of styles and periods of band literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 225. Jazz Ensemble III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 136. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 226. Jazz Ensemble IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 236Z2. Jazz Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 237. Orchestra III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 138. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 238. Orchestra IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 237. Emphasis is placed on orchestral techniques and the study and performance of a variety of styles and periods of orchestral and string ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 241. Ensemble III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Prerequisites: Take MUS 142

MUS 241B. Ensemble III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 142. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Prerequisites: Take MUS 142

MUS 241D. Ensemble III (Appalachian Dulcimer Ensemble III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 142D. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241D is Appalachian Dulcimer Ensemble III.

Prerequisites:
• Take MUS 142

MUS 241E. Ensemble III (Early Music Consort III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 142E. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 241E is Early Music Consort III with the prerequisite of Mus 142E.

Prerequisites: Take MUS 142

MUS 241F. Ensemble III (Folk Music “Jam” III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 142F. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241F is Folk Music “Jam” III.

Prerequisites:
• Take MUS 142

MUS 241G. Ensemble III (Guitar Ensemble III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 142G. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 241G is Guitar Ensemble III with the prerequisite of Mus 142G.

Prerequisites: Take MUS 142

MUS 241H. Ensemble III (Folk Harp Ensemble III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 142H. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241H is Folk Harp Ensemble III.

Prerequisites:
• Take MUS 142

MUS 241P. Ensemble III (Piano Ensemble III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 142P. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. Mus 241P is Piano Ensemble III with the prerequisite of Mus 142P.

Prerequisites: Take MUS 142

MUS 241R. Ensemble III (Recorder Ensemble III). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 142R. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. MUS 241R is Recorder Ensemble III with the prerequisite of Mus 142R.

Prerequisites: Take MUS 142

MUS 241Z2. Jazz Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 235. Emphasis is placed on jazz ensemble techniques and the study and performance of a variety of styles and periods of jazz literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
MUS 242. Ensemble IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

MUS 242B. Ensemble IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

Prerequisites: Take MUS 241B

MUS 242B2. Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

MUS 242D. Ensemble IV (Appalachian Dulcimer Ensemble IV). 1.0
Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 241D. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. MUS
242D is Appalachian Dulcimer Ensemble IV.

MUS 242E. Ensemble IV (Early Music Consort IV). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. Mus
242E is Early Music Consort IV with the prerequisite of MUS 242E.
Prerequisites: Take MUS 241E

MUS 242E2. Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

MUS 242F. Ensemble IV (Folk Music “Jam” IV). 1.0 Credit. Class-0.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 241F. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. MUS
242F is Folk Music “Jam” IV.

MUS 242G. Ensemble IV (Guitar Ensemble IV). 1.0 Credit. Class-0.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 241G. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. MUS
242G is Guitar Ensemble IV with the prerequisite of MUS 241G.
Prerequisites: Take MUS 241G

MUS 242H. Ensemble IV (Folk Harp Ensemble IV). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 241H. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. MUS
242H is Folk Harp Ensemble IV.

MUS 242P. Ensemble IV (Piano Ensemble IV). 1.0 Credit. Class-0.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. Mus
242P is Piano Ensemble IV with the prerequisite of MUS 241P.
Prerequisites: Take MUS 241P

MUS 242P2. Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

MUS 242R. Ensemble IV (Recorder Ensemble IV). 1.0 Credit.
Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 241R. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. MUS
242R is Recorder Ensemble IV with the prerequisite of MUS 241R.
Prerequisites: Take MUS 241R

MUS 242R2. Ensemble IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 241. Emphasis is placed on the
development of performance skills and the study of styles of ensemble
literature. Upon completion, students should be able to demonstrate skills
needed to participate in ensemble playing leading to performance. This
course has been approved to satisfy the Comprehensive Articulation
Agreement pre-major and/or elective course requirement.

MUS 251. Class Music III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0.
Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on

Central Piedmont Community College
MUS 251C. Class Music III (chords). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 251C is a course on Chords on the keyboard which will provide students with the ability to use chord symbols and to re-harmonize simple tunes and reduce them to lead sheets with the prerequisite of Mus 152P.
Prerequisites: Take MUS 152P

MUS 251E. Class Music III. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 152E

MUS 251G. Class Music III (jazz Guitar). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 152G. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 251G is Jazz Guitar I which includes harmonization of tunes using standard jazz chords and explores chord/Scale relationships through use of chord shapes with the prerequisite of Mus 152G.
Prerequisites: Take MUS 152G

MUS 251I. Class Music III Instrumental Rep. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 251P. Class Music III (piano iii). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of Mus 152P. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 251P is Class Piano III in an electronic piano laboratory setting with the prerequisite of Mus 152P.
Prerequisites: Take MUS 152P

MUS 251P2. Class Music III. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 251S. Class Music III Accompanying. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 152S

MUS 251V. Class Music III - Voice. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 152. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 152V

MUS 252. Class Music IV. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 252G. Class Music IV Jazz Guitar. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 251G

MUS 252I. Class Music IV Instrumental Repertoire. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 251I

MUS 252J. Class Music IV (jazz Piano). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Mus 252J is Jazz Piano which explores the application of both simple and complex chord forms in re-harmonizing standard popular tunes with the prerequisite of Mus 251C.
Prerequisites: Take MUS 251C
MUS 252. Class Music IV (piano IV). 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. MUS 252 P is Class piano IV in an electronic piano laboratory setting with the prerequisite of MUS 251P.
Prerequisites: Take MUS 251P

MUS 252P2. Class Music IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 252V. Class Music IV - Voice. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
Prerequisites: Take MUS 251V

MUS 252X. Class Music IV. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 251. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 253. Big Band. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes the Big Band instrumentation of five saxes, four trumpets, four trombones, and four-piece rhythm section (bass, piano, drums, and guitar). Emphasis is placed on learning the repertoire specifically written for Big Band instrumentation. Upon completion, students should be able to demonstrate skills needed to participate in performance of Big Band music. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 261. Applied Music III. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 262. Applied Music IV. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a continuation of MUS 261. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS 263. Jazz Improvisation I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides the opportunity for development of jazz improvisational skills necessary for ensemble performance. Emphasis is placed on chords related to 12-bar blues and simple songs using I-V-I chord progressions. Upon completion, students should be able to demonstrate skills needed to participate in performance. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 264. Jazz Improvisation II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides continued opportunity for development of jazz improvisational skills necessary for ensemble performance. Emphasis is placed on various styles of jazz and on learning to improvise over chord changes inherent in each style. Upon completion, students should be able to demonstrate skills needed to participate in performance. Styles studied include swing, be bop, fusion, ballads, latin (bossa novas, etc.), and rock.

MUS 265. Piano Pedagogy. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic methods and materials of piano instruction. Emphasis is placed on basic teaching techniques and piano literature appropriate for various skill levels. Upon completion, students should be able to identify and utilize appropriate teaching methods and materials for various levels of piano instruction. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 265Z2. Piano Pedagogy. 0.0 Credits. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic methods and materials of piano instruction. Emphasis is placed on basic teaching techniques and piano literature appropriate for various skill levels. Upon completion, students should be able to identify and utilize appropriate teaching methods and materials for various levels of piano instruction. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 271. Music History I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the first of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from Antiquity through the Baroque Period. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers’ styles. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

MUS 272. Music History II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second of a two-semester, in-depth study of music history. Emphasis is placed on the history and literature of music from the Classical Period to the present. Upon completion, students should be able to trace important musical developments and demonstrate an understanding of the composers’ styles. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
**College-Level Courses**

**MUS 273. Opera Production III. 3.0 Credits.** Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on stagecraft. Upon completion, students should be able to participate in an assigned position in a college opera production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MUS 274. Opera Production IV. 3.0 Credits.** Class-0.0. Clinical-0.0. Lab-9.0. Work-0.0
This course provides an applied laboratory study of the processes involved in the production of an opera. Topics include fundamental practices, principles, and techniques associated with producing operas of various musical periods with an emphasis on rehearsal and performance techniques. Upon completion, students should be able to participate in an assigned position in a college opera production. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**MUS 280. Music for the Elementary Classroom. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the skills necessary for teaching music in the elementary school. Emphasis is placed on integrating music activities which are suitable for all ages of elementary students, including theory, performance, and conducting, into classroom activities. Upon completion, students should be able to utilize a variety of music activities in the elementary school classroom. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**Network Operating Systems (NOS)**

**NOS 110. Operating Systems Concepts. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-9.0. Work-0.0
This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is placed on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

**NOS 120. Linux/UNIX Single User. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

**NOS 130. Windows Single User. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

**NOS 211. AS/400 Maintenance and Operation. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to cover the fundamental AS/400 System operations, screens, utilities, and terminology. Topics include an introduction to the AS/400 operating system, security, backup and restore, handling spooled files, and using commands and menus to create and manipulate objects. Upon completion, students should be able to use utilities, create libraries, save and restore files, monitor and control jobs and queues, and know AS/400 operations.

**NOS 220. Linux/UNIX Administration I. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the Linux file system, group administration, and system hardware controls. Topics include installation, creation and maintaining file systems, NIS client and DHCP client configuration, NFS, SMB/Samba, Configure X, Gnome, KDE, basic memory, processes, and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network.

**NOS 221. Linux/UNIX Administration II. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes skill building in configuring common network services and security administration using Linux. Topics include server-side setup, configuration, basic administration of common networking services, and security administration using Linux. Upon completion, students should be able to setup a Linux server and configure common network services including security requirements.

**NOS 222. Linux/UNIX Administration III. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes technical topics in preparing an enterprise Linux system for common uses. Topics include advanced study of hardware, installation, boot process, file system administration, software administration, user administration, system administration, kernel services, configuration, securing services, and troubleshooting. Upon completion, students should be able to administer an enterprise Linux system.

**NOS 230. Windows Administration I. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and Managing/ Implementing Disaster Recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

**NOS 231. Windows Administration II. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers implementing, managing, and maintaining a Windows Server network infrastructure. Topics include implementing, managing, and maintaining IP addressing, name resolution, network security, routing and remote access, and managing a network infrastructure. Upon completion, students should be able to manage and maintain a Windows Server environment.

**NOS 232. Windows Administration III. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers implementing and administering security in a Windows Server network. Topics include implementing, managing, and troubleshooting security policies, patch management infrastructure, security for network communications, authentication, authorization, and PKI. Upon completion, students should be able to implement, manage, and maintain a Windows Server network infrastructure.
**NOS 240. Novell Administration I. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the Novell network operating system. Topics include installing and using NetWare, managing printing, storage space, implementing internet services, and managing security. Upon completion, students should have basic knowledge about implementing NetWare and using its management tools.

**NOS 244. Operating System - AS/400. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes operating systems concepts for AS/400 systems. Topics include hardware management, file and memory management, system configuration/optimization, utilities, Job Control Language, and support functions. Upon completion, students should be able to perform operating system functions in an AS/400 environment.

**Networking Technology (NET)**

**NET 110. Networking Concepts. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the networking field. Topics include network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

**NET 113. Home Automation Systems. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the design, installation, testing, troubleshooting, and customer service of a fully automated home. Emphasis is placed on a structured wiring system that integrates the home phone, TV, home theater, audio, video, computer network, lighting, security systems, and automation systems into a pre-wired, remote controlled system. Upon completion, students should be able to design, install, and maintain home automation systems.

**NET 116. Fundamentals of Voice/Data Cable. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This introductory course to voice and data cabling focuses on cabling issues related to data and voice connections. Topics include skills in design documentation, determining cabling equipment, pulling, mounting and managing cable, selecting wiring closets, terminating cable, installing jacks, and testing cable. Upon completion, students should be able to understand of the industry, media and cabling, physical and logical networks, and signal transmission.

**NET 125. Networking Basics. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

**NET 126. Routing Basics. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

**NET 175. Wireless Technology. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the student to wireless technology and interoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Mark-up language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion, students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.

**NET 225. Routing & Switching I. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

**NET 226. Routing and Switching II. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

**NET 286. Current Trends in Security Systems. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces topics of current interest in the security industry. Emphasis is placed on evolving technology and trends in security systems. Upon completion, students should be able to critically analyze security issues and topics, establish and deliver informed opinions.

**NET 289. Networking Project. 3.0 Credits.** Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant networking project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

Prerequisites: Take NET 226 NOS 230
Corequisites: NOS 231
Nondestructive Examination (NDE)

NDE 110. Intro to Nondestructive Examination. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Nondestructive Examination (NDE) and its benefits, and provides a survey of the basic NDE methods and their limitations and advantages. Topics include terms and definitions associated with NDE, the basic approach to the nondestructive form of testing, and examples of industrial applications. Upon completion, students should be able to demonstrate a basic understanding of the major NDE methods and their applications.

NDE 112. Materials and Processes. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the student to materials, processing discontinuities, design parameters, metrology, and spatial relationships of industrial components. Topics include steel making, the nature of materials, inherent and processing discontinuities, elementary metallurgy, and the understanding of drawings. Upon completion, students should be able to demonstrate an understanding of how metals are formed, associated discontinuities, and how processing and geometric factors affect NDE results.

NDE 121. Principles of Ultrasonic Exam UT. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the student to basic principles associated with ultrasound and provides the initial elements of ASNT SNT-TC-1A Level I requirements for UT practitioners. Topics include wave modes and sound theory, and display modes are discussed and demonstrated through lab applications. Upon completion, students should be able to demonstrate a basic understanding of ultrasouns, and select proper equipment and set-up an instrument for straight beam examinations.

NDE 122. Angle Beam Examination. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the student to the principles associated with transverse wave examination. Topics include shear wave discontinuity location, effects of shear waves in various materials, and inspection of components. Upon completion, students should be able to select and calibrate transverse wave equipment and the equipment for shear wave inspection, using inspection procedures.

NDE 131. Radiation Safety & Principles of Rt. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces basics principles of radiation safety, and the limitations and advantages of the radiographic testing (RT) method. Emphasis is placed on radiation safety, interaction of radiation with matter, radiation monitoring, radiographic physics, radiographic technique, and basic RT equipment. Upon completion, students should be able to demonstrate a basic understanding of radiation safety and the operating principles of RT.

NDE 132. RT Industrial Applications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced radiographic applications and the ASNT SNT-TC-1A Level II qualification program. Emphasis is placed on darkroom processing, image quality, geometric issues, and exposure calculations. Upon completion, the student should be able to select a proper radiographic technique and film to perform acceptable radiography to specific codes and standards.

NDE 141. Surface Testing (VT/PT). 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles, limitations, advantages, and ASNT SNT-TC-1A training requirements of dye penetrant testing and visual examination. Emphasis is placed on visual and dye penetrant techniques, including the use of solvent removable, post-emulsifiable, and water-washable penetrating mediums. Upon completion, students should be able to demonstrate a basic understanding of dye penetrant techniques, visual examination, and their applications.

NDE 142. Visual Testing-1,2. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course describes the principles, limitations, and advantages of non-destructive examination (NDE) visual testing as it’s applied to industrial components such as pipes, pumps, valves, hangers and supports. Emphasis is placed on visual testing techniques including the use of visual aids and measuring gages. Upon completion, students should be able to demonstrate a basic understanding of NDE visual techniques and their applications.

NDE 143. Liquid Penetrant Testing-1,2. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course describes the principles, limitations, and advantages of non-destructive examination (NDE) liquid penetrant testing as it’s applied to industrial components such as pipes, pumps, valves, hangers and supports. Emphasis is placed on liquid penetrant testing techniques including the use of color contrast solvent removable and water washable penetrant techniques. Upon completion, students should be able to demonstrate a basic understanding of various NDE liquid penetrant techniques and their applications.

NDE 151. Electromag Test (MT/ET). 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles, advantages and limitations of magnetic particle testing (MT), and eddy current (ET), including the associated ASNT SNT-TC-1A requirements. Emphasis is placed on dry and wet fluorescent particle techniques, methods of magnetization, and eddy current principles and methods. Upon completion, students should be able to demonstrate a basic understanding of magnetic particle and eddy current techniques and their applications.

NDE 152. Magnetic Particle Testing-1,2. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course describes the principles, limitations, and advantages of non-destructive examination (NDE) magnetic particle testing as it’s applied to industrial components such as pipes, pumps, valves, hangers and supports. Emphasis is placed on magnetic particle testing techniques including dry and wet fluorescent particle techniques. Upon completion, students should be able to demonstrate a basic understanding of NDE magnetic particle techniques and their applications.

NDE 153. Eddy Current Testing-1. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course describes the principles, limitations, and advantages of non-destructive examination (NDE) eddy current testing as it’s applied to industrial components such as pipes, pumps, valves, hangers and supports. Emphasis is placed on eddy current testing techniques including the use of different types of eddy current equipment. Upon completion, students should be able to demonstrate a basic understanding of NDE eddy current techniques and their applications.
NDE 210. NDE Procedure Development. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course provides an understanding of codes and procedure qualifications as they relate to various testing methods. Emphasis is placed on writing NDE procedures in accordance with various codes and standards. Upon completion, students should be able to demonstrate a basic understanding of code requirements for procedures and how to write field applicable NDE procedures.

NDE 221. UT Industrial Applications. 4.0 Credits. Class-3.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course exposes the student to practical application of straight and angle beam techniques on actual component mock-ups and introduces automated equipment. Lab applications provide comprehensive inspection challenges and “blind” samples. Upon completion, students should be able to follow procedures to fully inspect a variety of components to differing code requirements.

NDE 222. Advanced Ultrasonic Testing. 3.0 Credits. Class-2.0.
Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the student to principles of flaw detection and sizing using advanced inspection techniques. Topics include advanced detection, sizing techniques, and inspection criteria using AWS and ASME codes as reference. Upon completion, students should be able to select and apply the proper technique to detect and locate length, size, and depth flaws.

NDE 231. Advance Radiographic Testing Techniques. 3.0 Credits.
Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an expert-level understanding of radiographic methods. Emphasis is placed on factors affecting image quality, RT techniques for more complex geometric situations, and enhanced film developing techniques. Upon completion, the student should be able to select a radiographic technique and film for complex geometries and enhanced film developing.

NDE 251. Indus Appl of Liquid Penetrant Testing and Magnetic Particle Testing. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides practical applications of the PT and MT methods. Topics include generic and specialized applications of PT and MT on industrial mock-ups. Upon completion, students should understand and be able to implement dye penetrants and magnetic particles in industrial applications.

NDE 252. Eddy Current Testing (ET). 2.0 Credits. Class-1.0.
Clinical-0.0. Lab-3.0. Work-0.0
This course provides practical applications of the eddy current testing (ET) method. Topics include generic and specialized applications of ET on industrial mock-ups. Upon completion, students should be able to demonstrate an understanding of ET in industrial applications.

NDE 261. Performance Demonstration Initiative -1. Ultrasonic Testing, Carbon Steel Pipe Welds. 7.0 Credits. Class-2.0. Clinical-0.0. Lab-15.0. Work-0.0
This course provides advanced ultrasonic instruction for nondestructive examination of carbon steel (CS) pipe welds. Topics include performance demonstration initiative (PDI), ultrasonic testing (UT), and longitudinal and shear wave examination techniques for carbon steel (CS) piping. Upon completion, students should be able to identify and describe the qualified detection and sizing techniques per PDI-UT-1 procedures.

NDE 262. Performance Demonstration Initiative -2. Ultrasonic Testing, Stainless Steel Pipe Welds. 7.0 Credits. Class-2.0. Clinical-0.0. Lab-15.0. Work-0.0
This course provides advanced ultrasonic instruction for nondestructive examination of stainless steel (SS) pipe welds. Topics include performance demonstration initiative (PDI), ultrasonic testing (UT), and longitudinal and shear wave examination techniques for stainless steel piping. Upon completion, students should be able to identify and describe the qualified detection and sizing techniques per PDI-UT-2 procedures.

NDE 263. Perf Demonstration Initiative -3. Ultrasonic Testing, Thru Wall Sizing, Carbon Steel/Stainless Steel. 3.0 Credits. Class-1.0.
Clinical-0.0. Lab-6.0. Work-0.0
This course provides advanced ultrasonic instruction for NDE through wall sizing (TWS) in carbon steel (CS) and stainless steel (SS) pipe welds. Topics include performance demonstration initiative (PDI), ultrasonic testing (UT), and longitudinal and shear wave examination techniques for through wall sizing. Upon completion, students should be able to identify and describe the qualified TWS techniques per PDI-UT-3 procedures.

Clinical-0.0. Lab-6.0. Work-0.0
This course provides advanced ultrasonic instruction for NDE of weld overlay (WOL) and dissimilar metal (DM) welds. Topics include performance demonstration initiative (PDI), ultrasonic testing (UT), and longitudinal and shear wave examination techniques for through wall sizing (TWS) of welds. Upon completion, students should be able to identify and describe the qualified TWS techniques per PDI-UT-8 procedures.

NDE 265. Performance Demonstration Initiative -10 Ultrasonic Testing, Dissimilar Metal Detection and Length Sizing. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides advance ultrasonic instruction for NDE of dissimilar metal (DM) welds for detection and length sizing. Topics include performance demonstration initiative (PDI), ultrasonic testing (UT), and longitudinal and shear wave examination techniques for detection and length sizing (DLS) of DM welds. Upon completion, students should be able to identify and describe the qualified DLS techniques per PDI-UT-10 procedures.

Nursing (NUR)

NUR 111. Introduction to Health Concepts. 8.0 Credits. Class-4.0.
Clinical-6.0. Lab-6.0. Work-0.0
This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR 112. Health-Illness Concepts. 5.0 Credits. Class-3.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: Take NUR 111 with a minimum grade of C
NUR 113. Family Health Concepts. 5.0 Credits. Class-3.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, inflammation, sensory perception, stress/coping, mood/affect, cognition, self, violence, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: Take NUR 111 with a minimum grade of C

NUR 114. Holistic Health Concepts. 5.0 Credits. Class-3.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: Take NUR 111 with a minimum grade of C

NUR 211. Health Care Concepts. 5.0 Credits. Class-3.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: Take NUR 111 with a minimum grade of C

NUR 212. Health System Concepts. 5.0 Credits. Class-3.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites:
• Take NUR 111 with a minimum grade of C

NUR 212BB. Health System Concepts. 2.5 Credits. Class-1.5. Clinical-3.0. Lab-0.0. Work-0.0
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.
Prerequisites: Take NUR 111 NUR 212AB with a minimum grade of C

NUR 213. Complex Health Concepts. 10.0 Credits. Class-4.0. Clinical-15.0. Lab-3.0. Work-0.0
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.
Prerequisites: Take NUR 111 with a minimum grade of C
Corequisites: Take All: NUR 112, NUR 113, NUR 114, NUR 211, and NUR 212

Nursing Assistant (NAS)

NAS 101. Nursing Assistant I. 6.0 Credits. Class-3.0. Clinical-3.0. Lab-4.0. Work-0.0
This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a health care setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as Nursing Assistant I with the North Carolina Nurse Aide I Registry.

NAS 102. Nursing Assistant II. 6.0 Credits. Class-3.0. Clinical-6.0. Lab-2.0. Work-0.0
This course provides training in selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing.

NAS 103. Home Health Care. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers basic health issues that affect clients in the home setting. Emphasis is placed on home safety, recognizing significant changes in the client’s condition, family dynamics, and use of home health care equipment. Upon completion, students should be able to identify care for clients at home.

Nutrition (NUT)

NUT 110. Nutrition. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers basic principals of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with nutrition. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well being.
Occupational Therapy Assistant (OTA)

OTA 110. Fundamentals of OT. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces occupational therapy theory, practice, philosophy, and principles. Emphasis is placed on providing a basic understanding of the profession as well as beginning to develop interaction and observation skills. Upon completion, students should be able to demonstrate basic understanding of OT practice options, uniform terminology, activity analysis, principles, process, philosophies, and frames of reference.

OTA 120. OT Media I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides training in recognizing the therapeutic value of and using a wide variety of leisure, self-care, and work activities. Topics include crafts, games, personal care and work activities, as well as teaching and learning methods and styles. Upon completion, students should be able to design, select, and complete/perform leisure, self-care, and work activities that would be therapeutic for designated client populations.

OTA 130. Assessment Skills. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides training in appropriate and accurate assessment and intervention skills related to sensory, movement, perceptual/cognitive, affective systems, and ADL skills. Topics include kinesiology, body mechanics, sensory, ROM, MMT, cognitive/perceptual, psychosocial, self-care, and work-related assessments; treatment approaches; and basics of group structure and dynamics. Upon completion, students should be able to administer various assessment tools and appropriate treatment approaches regarding sensation, movement, perception/cognition, affect, self-care, and work-related skills.

OTA 140. Professional Skills I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the roles and responsibilities of COTAs/OTRs in OT practice and facilitates development of observation, documentation, and therapeutic use of self skills. Topics include Code of Ethics, roles/responsibilities, credentialing/licensing, documentation, therapeutic use of self and professional identity/behavior, supervisory relationships, time management, and observation skills. Upon completion, students should be able to demonstrate ethical behavior, discriminate between roles/responsibilities of COTAs/OTRs, and participate in acceptable supervision, documentation, and scheduling.

OTA 150. Life Span Skills I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to use knowledge gained from PSY 241 as it applies to OT practice from birth to adolescence. Topics include review of normal growth and development, identification/discussion of common disabilities/delays, assessment, treatment planning, and intervention approaches used with these populations. Upon completion, students should be able to identify/use assessments/screenings and interventions for infants through adolescents for selected disabilities/developmental delays in various settings.

OTA 161. Fieldwork I-Placement 1. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.
Prerequisites: Take OTA 120 OTA 140 with a minimum grade of C
Corequisites: Take OTA 130

OTA 162. Fieldwork I-Placement 2. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.
Prerequisites: Take OTA 120 OTA 140 with a minimum grade of C
Corequisites: Take OTA 130

OTA 163. Fieldwork I-Placement 3. 1.0 Credit. Class-0.0. Clinical-3.0. Lab-0.0. Work-0.0
This course provides introductory-level clinical training opportunities. Emphasis is placed on observational and basic interactional skills in a setting with a culturally diverse client population. Upon completion, students should be able to use observational and interactional skills to relate effectively with clients under the guidance/direction of fieldwork supervisors.
Prerequisites: Take OTA 120 OTA 140 with a minimum grade of C
Corequisites: Take OTA 130

OTA 170. Physical Dysfunction. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to provide knowledge and skills needed for working with individuals experiencing varied medical/physical conditions within their socioeconomic and cultural environments. Topics include medical terminology, common diagnoses, structures/functions that change with disease processes, assessment/treatment priorities for specific problems/conditions, treatment planning, and intervention. Upon completion, students should be able to recognize common symptoms, prioritize problems, and provide for patient safety and infection control when planning and implementing treatment.

OTA 180. Psychosocial Dysfunction. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course uses theories/principles related to psychological/psychiatric health and illnesses and provides training in assessing/treating symptoms of dysfunction and therapeutic use of self and groups. Topics include psychiatric illnesses, symptoms of dysfunction, assessment and treatment of individuals, planning and facilitating therapeutic groups, client safety, and psychosocial aspects of practice. Upon completion, students should be able to effectively plan and conduct individual and group treatment for client conditions related to psychosocial dysfunction recognizing temporal/socioeconomic/cultural contexts.
Prerequisites: Take PSY 281 with a minimum grade of C
Corequisites: Take OTA 130
OTA 220. OT Media II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides training in appropriate and accurate assessment and intervention skills related to orthotics, prosthetics, assistive devices, environmental controls, and ADA issues. Topics include ergonomics and hand function, splint fabrication, changes that improve access for persons with disabilities, use of modalities in treatment, and computers in OT intervention. Upon completion, students should be able to demonstrate proficiency fabricating/monitoring orthotic devices, constructing/modifying assistive devices, using ADA guidelines, and using computers for therapeutic purposes.
Prerequisites: Take OTA 120 OTA 130 with a minimum grade of C

OTA 240. Professional Skills II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course builds upon and expands skills developed in OTA 140 with emphasis on documentation, supervisory relationships, involvement in the profession, and clinical management skills. Topics include clarification of roles/responsibilities, detailed examination of the supervisory process, professional participation in organizations, and the mechanics of assisting in clinic operations. Upon completion, students should be able to work effectively with a supervisor, plan/implement a professional activity, and perform routine clinic management tasks.
Prerequisites: Take OTA 140 with a minimum grade of C

OTA 250. Life Span Skills II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course uses knowledge gained from PSY 241 as it applies to OT practice from young adulthood through old age. Emphasis is placed on identification/discussion of common disabilities/chronic diseases, assessments, planning and interventions used with these populations, and activity programming. Upon completion, students should be able to identify/use assessments, interventions, and activities for adults with selected disabilities/losses in various settings.

OTA 260. Fieldwork II-Placement 1. 6.0 Credits. Class-0.0. Clinical-18.0. Lab-0.0. Work-0.0
This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.

OTA 261. Fieldwork II-Placement 2. 6.0 Credits. Class-0.0. Clinical-18.0. Lab-0.0. Work-0.0
This course provides clinical experience under the direct supervision of experienced OTR or COTA personnel working in various practice settings. Emphasis is placed on final clinical preparation for entry-level practice in the profession. Upon completion, students should be able to meet all critical competencies established by the curriculum and AOTA guidelines for entry-level practice.

OTA 280. Professional Transitions. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides closure to the educational program following Fieldwork II placements. Emphasis is placed on portfolio development and presentation, program evaluation, Fieldwork II experience analysis and synthesis, and preparation for the certification examination. Upon completion, students should be able to enter the OT work force with supportive documentation demonstrating progress toward meeting critical competencies set forth by the curriculum.

Office Systems Technology (OST)

OST 122. Office Computations. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the keypad and the touch method using the electronic calculator. Topics include mathematical functions in business applications. Upon completion, students should be able to use the electronic calculator to solve a wide variety of problems commonly encountered in business.

OST 131. Keyboarding. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 131AB. Keyboarding. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 131BB. Keyboarding. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 134. Text Entry & Formatting. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to provide skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.
Prerequisites: Complete one of the following options:
• Take OST 131
• Take OST 131AB OST 131BB

OST 135. Advanced Text Entry & Formatting. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on advanced document production. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.
Prerequisites: Take OST 134 with a minimum grade of C

OST 136. Word Processing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.
Prerequisites: Take OST 131 with a minimum grade of C
OST 137. Office Software Applications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands-on approach. Upon completion, students should be able to use software in a business environment.

OST 138. Advanced Software Applications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to improve the proficiency in the utilization of software applications used in business offices through a hands-on approach. Emphasis is placed on in-depth usage of software to create a variety of documents applicable to current business environments. Upon completion, students should be able to master the skills required to design documents that can be customized using the latest software applications. Prerequisites: Take OST 137 CIS 111 or CIS 110 with a minimum grade of C

OST 148. Medical Coding Billing & Insurance. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces fundamentals of medical coding, billing, and insurance. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

OST 149. Medical Legal Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

OST 155. Legal Terminology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and accurately use legal terms.

OST 156. Legal Office Procedures. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers legal office functions involved in the operation of a law office. Emphasis is placed on procedures in the law office involving the court system, legal research, litigation, probate, and real estate, personal injury, criminal, and civil law. Upon completion, students should be able to demonstrate a high level of competence in performing legal office duties. This course is a unique requirement of the Legal Office Systems concentration in the Office Systems Technology program.

OST 164. Text Editing Applications. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST 184. Records Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

OST 191. Selected Topics in Office Systems Technology. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. PowerPoint software is taught in this course.

OST 221. Principles of Shorthand I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the theory and principles of a shorthand system. Topics include the basic phonetic characters, the abbreviated forms, and the fundamentals of phrasing. Upon completion, students should be able to accurately and proficiently read and write forms and write from dictation.

OST 223. Administrative Office Transcription I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides experience in transcribing documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe office documents. Prerequisites: Complete one of the following options:
- Take OST 164 with a minimum grade of C
- Take OST 134 or OST 136 with a minimum grade of C

OST 233. Office Publications Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications. Hands-on experience using a software package on a PC is provided to illustrate concepts and provide practice in developing documents and publications.

OST 236. Advanced Word Or Information Processing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course develops proficiency in the utilization of advanced word/ information processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.

OST 241. Med Ofc Transcription I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces machine transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, and use of reference materials as well as vocabulary building. Upon completion, students should be able to prepare accurate and usable transcripts of voice recordings in the covered specialties. Prerequisites:
- Take MED 121 or OST 141 with a minimum grade of C
- Take OST 134 OST 136 with a minimum grade of C
OST 243. Med Office Simulation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections. Prerequisites: Take OST 148 OST 134 OST 136 with a minimum grade of C

OST 244. Medical Document Production. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides production-level skill development in processing medical documents. Emphasis is placed on producing mailable documents through the use of medical-related materials. Upon completion, students should be able to perform competently in preparing accurate, correctly formatted, and usable documents.

OST 251. Legal Document Formatting. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This document is designed to provide experience in the preparation of various types of legal forms and documents. Emphasis is placed on formatting and keying legal forms, documents, and correspondence. Upon completion, students should be able to produce these documents with accuracy and speed.

OST 252. Legal Transcription I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides experience in transcribing legal correspondence, forms, and documents. Emphasis is placed on developing listening skills to transcribe documents. Upon completion, students should be able to transcribe documents with accuracy. Prerequisites: Complete one of the following options:

- Take OST 155 with a minimum grade of C
- Take OST 134 or OST 136 with a minimum grade of C

OST 284. Emerging Technologies. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

OST 286. Professional Development. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

OST 289. Administrative Office Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

Operations Management (OMT)

OMT 110. Intro to Operations Mgmt. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the operations management field. Topics include production and operations planning, materials management, environmental health and safety, and quality management. Upon completion, students should be able to demonstrate an understanding of the operations management functions. Prerequisites: Complete one of the following options:

- Take DRE 098
- Take RED 090 ENG 090 ENG 090A
- Take ENG 095 ENG 095A
- Take EFL 111 EFL 112
- Take ENG 090 ENG 090A
- Take RED 090 EFL 111
- Take ENG 111

OMT 112. Materials Management. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management. This course is a unique requirement of the Operations Management concentration in the Business Administration program.

Opticianry (OPH)

OPH 103. Introduction to Diseases of the Eye. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamentals of common external and internal diseases of the eye and orbital region. Topics include common patient complaints, what constitutes an ocular emergency, triage procedure and common conditions and disorders. Upon completion, the student should be able to identify most common ocular diseases and determine appropriate emergency management of acute ocular problems.

OPH 104. Basic Ophthalmic Pharmacology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces and compares drug delivery systems. Topics include topical and oral medications, use and abuse of drugs, irritating solutions, and format for prescription writing. Upon completion, the students should administer and record topical and oral medications at the physician’s direction.

OPH 105. Ophthalmic Clinical Procedures I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces basic clinical procedures for the ophthalmic practitioner. Topics include telephone triage and basic procedures commonly used in the preliminary examination of patients. Upon completion, the student should be able to perform basic administrative tasks, assist with minor office surgery, and perform procedures commonly used in patient examinations.
OPH 106. Ophthalmic Medical Assistant Practicum I. 9.0 Credits.  
Class-2.0. Clinical-27.0. Lab-0.0. Work-0.0  
This course introduces ophthalmic patient-care procedures. Topics include interpersonal skills with patients, work and legal ethics, confidentiality, clinical appearance, and performance. Upon completion, the student will determine equipment and instruments associated with patient examination, observation of examination techniques, assigned examination lanes to maintain, basic procedures for information gathering in an examination.

OPH 107. Ophthalmic Clinical Procedures II. 2.0 Credits. Class-1.0.  
Clinical-0.0. Lab-2.0. Work-0.0  
This course introduces more advanced clinical procedures for the ophthalmic practice. Topics include coding and testing associated with the treatment of glaucoma, cataracts and refractive errors. Upon completion, the student should understand coding for ophthalmic procedures and perform automated perimetry, A scan biometry, keratometry and pachymetry.

OPH 108. Ophthalmic Patient Care. 2.0 Credits. Class-2.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course is an overview of the care of the ophthalmic patient. Topics include systemic diseases in the eye, review of first aid, emergency equipment and supplies, infection control, identification and sterilization of minor surgical equipment, and aseptic technique. Upon completion, the students should be able to apply these principles in their interactions with patients.

OPH 109. Ophthalmic Optics & Basic Refractometry. 2.0 Credits.  
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces basic theoretical and clinical optics. Topics include interaction of light and lenses, refractive states of the eye, and principles of retinoscopy and refractometry. Upon completion, the student will demonstrate physical and geometric optics, and basic refractometry techniques.

OPH 110. Ophthalmic Medical Assistant Practicum II. 9.0 Credits.  
Class-2.0. Clinical-27.0. Lab-0.0. Work-0.0  
This course provides additional clinical experience in ophthalmic patient care procedures. Topics include interpersonal skills with patients, work and legal ethics, confidentiality, appearance, and performance. Upon completion, the student will demonstrate basic skills in patient care and examination techniques.

OPH 150. Intro to Ophthalmic Medical Assisting. 2.0 Credits.  
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces the role, scope, and duties of the ophthalmic assistant. Topics include medical ethics, duties of assistant, medical history, basic medical terminology, and an overview of human anatomy and physiology. Upon completion, students should be able to demonstrate knowledge of medical history taking, preliminary patient examination, basic ophthalmic equipment, and office efficiency.

OPH 151. Ocular Anatomy & Physiology. 2.0 Credits.  
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course studies the normal anatomy and physiology of eye and orbit. Topics include structures of the eye, functioning process of the eye and correct medical terminology of the structures and functions of the eye. Upon completion, the student should demonstrate a basic understanding and fundamental principles of anatomy and physiology of the eye.

Pharmacy (PHM)

PHM 110. Introduction to Pharmacy. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the health care system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references.

PHM 111. Pharmacy Practice I. 4.0 Credits.  
Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, out-patient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings.

PHM 115. Pharmacy Calculations. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides an introduction to the metric, apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to correctly perform calculations required to properly prepare a medication order.

PHM 118. Sterile Products. 4.0 Credits.  
Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies utilized in admixture preparation; incompatibility and stability; laminar flow hoods; immunizations and irrigation solutions; and quality assurance. Upon completion, students should be able to describe and demonstrate the steps involved in preparation of intermittent and continuous infusions, total parenteral nutrition, and chemotherapy. Prerequisites: Take PHM 110 PHM 111 with a minimum grade of C

PHM 120. Pharmacology I. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 125. Pharmacology II. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names. Prerequisites: Take PHM 120 with a minimum grade of C
PHM 132. Pharmacy Clinical. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers. Prerequisites: Take PHM 111 with a minimum grade of C

PHM 134. Pharmacy Clinical. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 138. Pharmacy Clinical. 8.0 Credits. Class-0.0. Clinical-24.0. Lab-0.0. Work-0.0
This course provides an opportunity to work in pharmacy settings under a pharmacist’s supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 140. Trends in Pharmacy. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the major issues, trends, and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement, and the latest developments in pharmacy technician practice. Upon completion, students should be able to demonstrate a basic knowledge of the topics discussed. Prerequisites: Take PHM 110 with a minimum grade of C

PHM 150. Hospital Pharmacy. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an in-depth study of hospital pharmacy practice. Topics include hospital organizational structure, committee functions, utilization of reference works, purchasing and inventory control, drug delivery systems, and intravenous admixture preparation. Upon completion, students should be able to explain hospital organization/committee functions, interpret and enter patient orders, fill unit-dose casettes, and prepare intravenous admixtures. Prerequisites: Take PHM 118 with a minimum grade of C Corequisites: PHM 118

PHM 155. Community Pharmacy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the operational procedures relating to retail pharmacy. Emphasis is placed on a general knowledge of over-the-counter products, prescription processing, business/inventory management, and specialty patient services. Upon completion, students should be able to provide technical assistance and support to the retail pharmacist.

PHM 160. Pharm Dosage Forms. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a study of pharmaceutical dosage forms and considerations in their manufacture. Topics include bioavailability, routes of administration, tablets, capsules, solutions, syrups, suspensions, elixirs, aerosols, transdermals, topicals, ophthalmics, otics, and other dosage forms. Upon completion, students should be able to describe the characteristics of the major dosage forms and explain how these characteristics affect the action of the drug.

PHM 165. Pharmacy Prof Practice. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a general overview of all aspects of pharmacy technician practice. Emphasis is placed on pharmacy law, calculations, compounding, pharmacology, and pharmacy operations. Upon completion, students should be able to demonstrate competence in the areas required for the Pharmacy Technician Certification Examination.

PHM 265. Professional Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comprehensive discussion of topics common to the practice of the pharmacy technician. Emphasis is placed on application of professional competencies including legal/ethical issues, leadership/management concepts and employability skills. Upon completion, students should be able to demonstrate competence in pharmacy workplace skills and leadership/management roles. Prerequisites: Take PHM 165 with a minimum grade of C

Philosophy (PHI)

PHI 215. Philosophical Issues. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue.

PHI 220. Western Philosophy I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers Western intellectual and philosophic thought from the early Greeks through the medievalists. Emphasis is placed on such figures as the pre-Socratics, Plato, Aristotle, Epicurus, Epictetus, Augustine, Suarez, Anselm, and Aquinas. Upon completion, students should be able to trace the development of leading ideas regarding reality, knowledge, reason, and faith. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in Humanities/Fine Arts. Prerequisites: Take ENG 111

PHI 230. Introduction to Logic. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic concepts and techniques for distinguishing between good and bad reasoning. Emphasis is placed on deduction, induction, validity, soundness, syllogisms, truth functions, predicate logic, analogical inference, common fallacies, and scientific methods. Upon completion, students should be able to analyze arguments, distinguish between deductive and inductive arguments, test validity, and appraise inductive reasoning. Prerequisites: Take ENG 111
PHI 240. Introduction to Ethics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-Based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in humanities/Fine arts.

Physical Education (PED)

PED 110. Fit and Well for Life. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 111. Physical Fitness I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 113. Aerobics I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 114. Aerobics II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 115. Step Aerobics I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamentals of step aerobics. Emphasis is placed on basic stepping up and down on an adjustable platform; cardiovascular fitness; and upper body, floor, and abdominal exercises. Upon completion, students should be able to participate in basic step aerobics. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 117. Weight Training I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 118. Weight Training II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers advanced levels of weight training. Emphasis is placed on meeting individual training goals and addressing weight training needs and interests. Upon completion, students should be able to establish and implement an individualized advanced weight training program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 119. Circuit Training. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the skills necessary to participate in a developmental fitness program. Emphasis is placed on the circuit training method which involves a series of conditioning timed stations arranged for maximum benefit and variety. Upon completion, students should be able to understand and appreciate the role of circuit training as a means to develop fitness.

PED 122. Yoga I. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 123. Yoga II. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 125. Self-Defense: Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 128. Golf-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course emphasizes the fundamentals of golf. Topics include the proper grips, stance, alignment, swings for the short and long game, putting, and the rules and etiquette of golf. Upon completion, students should be able to perform the basic golf shots and demonstrate a knowledge of the rules and etiquette of golf. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.
PED 130. Tennis-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 131. Tennis-Intermediate. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 135. Fencing-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamentals of fencing. Emphasis is placed on grip, stance, and establishment of good techniques for attacks and parries. Upon completion, students should be able to perform elementary foil techniques and demonstrate the basic skills of fencing. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 137. Badminton. 1.0 Credit. Class-0.0. Clinical-0.0.
This course covers the fundamentals of badminton. Emphasis is placed on the basics of serving, clears, drops, drives, smashes, and the rules and strategies of singles and doubles play. Upon completion, students should be able to apply these skills in playing situations.

PED 139. Bowling-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 143. Volleyball-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the fundamentals of volleyball. Emphasis is placed on the basics of serving, passing, setting, spiking, blocking, and the rules and etiquette of volleyball. Upon completion, students should be able to participate in recreational volleyball.

PED 144. Volleyball-Intermediate. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball.

PED 145. Basketball-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball.

PED 144. Swimming-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed for non-swimmers and beginners. Emphasis is placed on developing confidence in the water, learning water safety, acquiring skills in floating, and learning elementary strokes. Upon completion, students should be able to demonstrate safety skills and be able to tread water, back float, and use the crawl stroke for 20 yards. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 152. Swimming-Beginning. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces rhythmic aerobic activities performed in water. Emphasis is placed on increasing cardiovascular fitness levels, muscular strength, muscular endurance, and flexibility. Upon completion, students should be able to participate in an individually-paced exercise program. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 155. Water Aerobics. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the proper techniques for establishing a campsite, navigating in the wilderness, and planning for an overnight trip. Topics include planning for meals, proper use of maps and compass, and packing and dressing for extended periods in the outdoors. Upon completion, students should be able to identify quality backpacking equipment, identify the principles of no-trace camping, and successfully complete a backpacking experience. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 163. Kayaking-Basic. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to safely negotiate class II and some class III rapids and perform all rescue skills. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.

PED 169. Orienteering. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to safely negotiate class II and some class III rapids and perform all rescue skills. This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a premajor and/or elective course requirement.
PED 171. Nature Hiking. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides instruction on how to equip and care for oneself on the trail. Topics include clothing, hygiene, trail ethics, and necessary equipment. Upon completion, students should be able to successfully participate in nature trail hikes. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 173. Rock Climbing. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course teaches the fundamental skills and safety of rock climbing. Topics include rock climbing, bouldering, rappelling, the correct method of belaying for climbing and rappelling, and knowledge of equipment. Upon completion, students should be able to demonstrate strong and skillful techniques in climbing and rappelling. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 174. Wilderness Pursuits. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the skills necessary to prepare for and participate in a wilderness trip. Emphasis is placed on planning, preparing, and participating in a wilderness pack trip. Upon completion, students should be able to safely participate in overnight wilderness pack trips. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 186. Dancing for Fitness. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to develop movement and recreational dance skills, safety, fitness, coordination, and techniques used to teach various groups. Emphasis is placed on participation and practice with adapting dances for ages and ability levels. Upon completion, students should be able to demonstrate knowledge of fitness through social, folk, and square dance participation and instruction. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PED 191. Selected Topics in Physical Education. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline area. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

PED 210. Team Sports. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamentals of popular American team sports. Emphasis is placed on rules, equipment, and motor skills used in various sports. Upon completion, students should be able to demonstrate knowledge of the sports covered.

PED 291. Selected Topics in Physical Education. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline area. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Physical Fitness Technology (PSF)

PSF 110. Exercise Science. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.

PSF 111. Fitness & Exer Testing I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

PSF 114. Phys Fit Theory & Instr. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information about related components of fitness and general information about the industry. Topics include the study of the components of fitness, theories of exercise and fitness, and information about the industry. Upon completion, students should be able to identify fitness components and demonstrate these in an exercise setting.

PSF 210. Personal Training. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

PSF 211. Fitness & Exer Testing II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This is an advanced course in graded exercise testing. Topics include various exercise testing protocols for physical fitness and cardiorespiratory fitness with methods for prescribing exercise programs based on exercise test results. Upon completion, students should be able to conduct specific exercise tolerance tests using a variety of equipment and protocols.

PSF 212. Exercise Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

PSF 218. Lifestyle Chng & Wellness. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.
Physical Science (PHS)

PHS 110. Survey of Physical Science. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the physical environment with emphasis on the laws and physical concepts that impact the world and universe. Topics include astronomy, geology, meteorology, general chemistry, and general physics. Upon completion, students should be able to describe the forces and composition of the earth and universe. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

PHS 140. Weather and Climate. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the nature, origin, processes, and dynamics of the earth's atmospheric environment. Topics include general weather patterns, climate, and ecological influences on the atmosphere. Upon completion, students should be able to demonstrate an understanding of weather formation, precipitation, storm patterns, and processes of atmospheric pollution. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

Physical Therapy (PTA)

PTA 110. Intro to Physical Therapy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the field of physical therapy including the history and standards of practice for the physical therapist assistant and basic treatment techniques. Emphasis is placed on ethical and legal considerations, universal precautions, vital signs, documentation, basic patient preparation and treatment skills, and architectural barrier screening. Upon completion, students should be able to explain the role of the physical therapist assistant and demonstrate competence in basic techniques of patient care.
Prerequisites: Take BIO 168 with a minimum grade of C
Corequisites: PTA 125

PTA 125. Gross & Functional Anatomy. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides an in-depth, clinically oriented survey of gross and functional anatomy. Emphasis is placed on musculoskeletal and nervous systems and clinical biomechanics, including goniometry, basic manual muscle testing, and components of normal gait. Upon completion, students should be able to identify specific anatomical structures and describe, observe, and measure musculoskeletal posture and function.
Prerequisites:
• Take BIO 168 with a minimum grade of C
Corequisites: PTA 110

PTA 135. Pathology. 4.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces principles of pathology, processes of and normal responses to injury and disease, and changes related to aging. Emphasis is placed on conditions most commonly treated in physical therapy. Upon completion, students should be able to discuss basic pathological processes and identify etiology, signs, symptoms, complications, treatment options, and prognoses of specific orthopedic conditions.
Prerequisites:
• Take BIO 169 PTA 110 PTA 125 with a minimum grade of C
Corequisites: PTA 215

PTA 145. Therapeutic Procedures. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides a detailed study of specific treatment procedures and the physiological principles and techniques involved. Emphasis is placed on the correct application of superficial heat and cold, massage and soft tissue mobilization, ultrasound, diathermy, traction, and electrical stimulation. Upon completion, students should be able to demonstrate competence in the application of these modalities and explain the indications, contraindications, effects, and precautions for each.
Prerequisites: Take BIO 169 PTA 110 PTA 125 with a minimum grade of C
Corequisites: PTA 222

PTA 155. PTA Clinical II. 3.0 Credits. Class-0.0. Clinical-9.0. Lab-0.0. Work-0.0
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.
Prerequisites:
• Take PTA 135 PTA 145 PTA 215 PTA 222 with a minimum grade of C
Corequisites: PTA 185

PTA 185. PTA Clinical II. 3.0 Credits. Class-0.0. Clinical-9.0. Lab-0.0. Work-0.0
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.
Prerequisites:
• Take PTA 135 PTA 145 PTA 215 PTA 222 with a minimum grade of C
Corequisites: PTA 165

PTA 212. Health Care/Resources. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of various aspects of health care delivery systems and the interrelationships of health care team members. Topics include health agencies and their functions, health care team member roles, management, and other health care issues. Upon completion, students should be able to discuss the functions of health organizations and team members and aspects of health care affecting physical therapy delivery.
Prerequisites: Take PTA 225 PTA 235AB PTA 165 PTA 185 with a minimum grade of C
Corequisites: PTA 235BB

PTA 215. Therapeutic Exercise. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic concepts of strengthening, endurance, and flexibility exercise and balance, gait, and posture training. Emphasis is placed on applying techniques to the treatment of orthopedic conditions. Upon completion, students should be able to safely and effectively execute basic exercise programs and balance, gait, and posture training.
Prerequisites:
• Take BIO 169 PTA 110 PTA 125 with a minimum grade of C
Corequisites: PTA 135
PTA 222. Professional Interactions. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to assist in the development of effective interpersonal skills in the physical therapist assistant setting. Topics include reactions to disability, the grieving process, methods of communication, motivation, health promotion, disease prevention, and aging. Upon completion, students should be able to discuss and demonstrate methods for achieving effective interaction with patients, families, the public, and other health care providers.
Prerequisites:
• Take BIO 169 PTA 110 PTA 125 with a minimum grade of C
Corequisites: PTA 145

PTA 225. Intro to Rehabilitation. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers cardiovascular, pulmonary, and integumentary conditions, as well as causes and treatment of amputations. Emphasis is placed upon pathological processes as well as comprehensive treatment of the various conditions studied. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.
Prerequisites:
• Take PTA 135 PTA 145 PTA 215 PTA 222 with a minimum grade of C
Corequisites: PTA 235AB

PTA 235. Neurological Rehab. 5.0 Credits. Class-3.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods and rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.

PTA 235AB. Neurological Rehab. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods and rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.
Prerequisites:
• Take PTA 135 PTA 145 PTA 215 PTA 222 with a minimum grade of C
Corequisites: PTA 225

PTA 235BB. Neurological Rehab. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers neurological and neuromuscular conditions experienced throughout the life span. Topics include the pathology of selected conditions and the methods and rationales of various treatment approaches. Upon completion, students should be able to discuss etiology, signs, symptoms, complications, and prognoses of various conditions and implement components of a comprehensive treatment program.
Prerequisites:
• Take PTA 225 PTA 235AB PTA 165 PTA 185 with a minimum grade of C
Corequisites: PTA 212

PTA 245. PTA Clinical III. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides the opportunity to gain clinical experience and apply academic skills and knowledge to patient care. Emphasis is placed on performing patient care skills, observation and measurement, and professional and patient interaction. Upon completion, students should be able to demonstrate safe and effective clinical practice as measured by a standardized performance evaluation.
Prerequisites:
• Take PTA 225 PTA 235AB PTA 165 PTA 185 with a minimum grade of C
Corequisites: PTA 245

PTA 270. PTA Topics. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the physical therapist assistant profession in preparation for the state licensure exam. Topics include developing time management skills and practicing for the competence examinations. Upon completion, students should be able to identify individual academic strengths and weaknesses and utilize this information to continue self-study for the licensure exam.
Prerequisites: Take PTA 225 PTA 235AB PTA 165 PTA 185 with a minimum grade of C
Corequisites: PTA 255
Physics (PHY)

PHY 110. Conceptual Physics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a conceptually-Based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. You must register for both PHY 110A and PHY 110 unless you have received prior credit for one of these classes. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/mathematics.

PHY 110A. Conceptual Physics Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. You must register for both PHY 110 and PHY 110A unless you have prior credit for one of these classes. This course has been approved to satisfy the comprehensive articulation agreement general education core requirement in natural sciences/Mathematics.

PHY 121. Applied Physics I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton’s laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

PHY 131. Physics-Mechanics. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This Algebra/Trigonometry-Based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton’s laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. Credit by exam for PHY 151 can be obtained by request upon completion.

PHY 132. Physics-Electricity & Magnetism. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This algebra/Trigonometry-Based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analyses, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields. Credit by exam for PHY 152 can be obtained by request upon completion.

PHY 151. College Physics I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

PHY 152. College Physics II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.

PHY 153. Modern Topics in Physics. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include atomic structure, nuclear processes, natural and artificial radioactivity, basic quantum theory, and special relativity. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.
Prerequisites: Take PHY 151
Take PHY 151 with a minimum grade of C

PHY 251. General Physics I. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 252. General Physics II. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.
Prerequisites: Complete one of the following options:

- Evaluating these systems.
- Of issues inherent in all political systems and draw logical conclusions in systems. Upon completion, students should be able to discuss a variety addresses a wide range of political issues. Topics include political theory, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to describe the differences between thermoplastics and thermostats and recognize the basics of the different plastic processes.

Plastics (PLA)

- PLA 110. Introduction to Plastics. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course introduces the plastics processing industry, including thermoplastics and thermostats. Emphasis is placed on the description, classification, and properties of common plastics and processes and current trends in the industry. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course is recommended for students majoring in physics, chemistry, or as an elective for engineering.

Plumbing (PLU)

- PLU 111. Intro to Basic Plumbing. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
  This course introduces basic plumbing tools, materials, and fixtures. Topics include standard tools, materials, and fixtures used in basic plumbing systems and other related topics. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered. This course is recommended for students majoring in physics, chemistry, or as an elective for engineering.

- PLU 130. Plumbing Systems. 6.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain, and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

Political Science (POL)

- POL 110. Introduction to Political Science. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems.

- POL 120. American Government. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

- POL 210. Comparative Government. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

- POL 220. International Relations. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
  This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
POL 241. Presidential Elections. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an in-depth examination of the process by which an American president is selected. Emphasis is placed on major party primaries and conventions, minor parties, campaigns and voting in the media age, fund-raising, and the electoral college. Upon completion, students should be able to discuss the effectiveness of candidacies and campaigns and to assess the need for reform. This course is intended for all associate degree programs.

Printing (PRN)

PRN 131. Flexography I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides basic hands-on instruction in flexographic image preparation, platemaking, mounting, and printing. Emphasis is placed on taking press measurements, making and mounting plates, and obtaining quality in press operation on a narrow-web press. Upon completion, students should be able to describe and perform flexographic production procedures in pre-press, press setup, press operation, and die-cutting.

PRN 132. Flexography II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is a continuation of PRN 131 and introduces wide-Web presses. Emphasis is placed on troubleshooting press problems, color matching, parts identification, make-Ready, and setup of narrow-Web, wide-Web, or corrugated presses. Upon completion, students should be able to produce advanced projects involving all flexographic production phases. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

PRN 140. Bindery & Finishing. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers bindery and finishing operations. Topics include folding, cutting, gathering, binding, embossing, stamping, die-cutting, drilling, punching, mailing, and packaging. Upon completion, students should be able to operate various finishing and bindery equipment and demonstrate an understanding of the relationship of finishing to printing processes.

PRN 155. Screen Printing I. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers screen printing techniques and materials. Topics include methods, materials, design, and image and stencil preparation techniques. Upon completion, students should be able to produce single- or multi-color projects.

PRN 156. Screen Printing II. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of PRN 155. Emphasis is placed on advanced techniques and current industry practices. Upon completion, students should be able to produce multi-color projects utilizing various photographic stencil methods and substrates.

PRN 221. Offset Press Operations. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers advanced lithographic theory and provides extensive hands-on operating experience. Emphasis is placed on make-ready, press operation, maintenance, and troubleshooting of multi-color jobs on sheet-fed offset presses and duplicators. Upon completion, students should be able to set up, run, maintain, and produce commercial-quality multi-color work.

PRN 231. Flexography III. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course is a continuation of PRN 132. Emphasis is placed on the products made and processes used in the industry. Upon completion, students should be able to demonstrate an understanding of advanced production techniques of flexographic products. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

PRN 232. Flexography IV. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides opportunities for advanced and specialized study in flexography. Emphasis is placed on specialized product design and production. Upon completion, students should be able to demonstrate an understanding of the comprehensive scope of the flexographic industry, products, and processes. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

PRN 240. Print Estimating/Planning. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to specialize in certain applications in flexographic printing. Emphasis is placed on understanding color and production concerns in order to produce products. Upon completion, students should be able to troubleshoot color problems during printing and relate them to the production procedures. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

PRN 241. Flexo Applications I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to specialize in certain applications in flexographic printing. Emphasis is placed on understanding color and production concerns in order to produce products. Upon completion, students should be able to troubleshoot color problems during printing and relate them to the production procedures. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

PRN 242. Flexo Applications II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
Provides an opportunity to produce comprehensive projects, including color work on special substrates using specialty links. Emphasis is placed on compensation for press limitations to produce high-Quality color products. Upon completion, students should be able to produce color images on a variety of substrates and troubleshoot and solve production problems. This course is a unique concentration requirement in the flexography concentration in the graphic arts and imaging technology program.

Process Control Instrumentation (PCI)

PCI 162. Instrumentation Controls. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course surveys industrial process control instrumentation concepts, devices, and systems. Topics include process control devices and process control applications associated with industrial instrumentation. Upon completion, students should be able to demonstrate a basic understanding of the various industrial process control and instrumentation systems.
Prerequisites: Take ELC 213
PCI 170. DAQ and Control. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a survey of data acquisition and control applications in an industrial setting. Topics include remote I/O systems, PC-based data acquisition, real-time monitoring, and other related topics. Upon completion, students should be able to demonstrate an understanding of data acquisition circuits.
Prerequisites: Take ELN 133E

PCI 172. SCADA Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a survey of SCADA systems found in the industrial setting. Topics include single and/or multiple machine operator interfaces utilizing hardware and software systems running SCADA or HMI software for system monitoring and control. Upon completion, students should be able to demonstrate an understanding of the utilization and implementation of custom and commercial SCADA or HMI software.
Prerequisites: Take ELN 260

PCI 173. Programmable Systems. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
The course is a survey of various programmable systems used in industry. Topics include PLC systems, PAC systems, DCS systems, and embedded systems and other types of control systems implementation. Upon completion, students should be able to demonstrate an understanding of the programming, troubleshooting, maintenance and planning involved in control systems.
Prerequisites: Take ELN 260

Psychology (PSY)

PSY 150. General Psychology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

PSY 231. Forensic Psychology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to concepts which unite psychology and the legal system. Topics include defining competency, insanity, involuntary commitment, as well as introducing forensic assessment techniques, such as interviewing process, specialized assessments, and collecting collateral information. Upon completion, students should be able to demonstrate knowledge in areas of forensic psychology: risk assessment, criminal competencies, insanity, psychopathology, and mentally disordered offenders.
Prerequisites: Take PSY 150 with a minimum grade of C

PSY 237. Social Psychology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the study of individual behavior within social contexts. Topics include affiliation, attitude formation and change, conformity, altruism, aggression, attribution, interpersonal attraction, and group behavior. Upon completion, students should be able to demonstrate an understanding of the basic principles of social influences on behavior.
Prerequisites: Take PSY 150 or SOC 210 with a minimum grade of C

PSY 241. Developmental Psychology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

PSY 281. Abnormal Psychology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion, students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.

Race Car Technology (RCT)

RCT 110. Introduction to Racing. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers safe working practices for the shop and race track environments, various types of racing, race vehicles, and organizations that sponsor events. Topics include circle track racing, drag racing, road racing on asphalt and dirt, knowledge and personal motivation, and safety in the racing environment. Upon completion, students should demonstrate knowledge of the professional aspects of racing.

RCT 121. Race Car Metal Inert Gas Welding. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course introduces safety, proper setup, and operation of the gas metal arc welding process, also known as MIG welding. Topics include safety, equipment setup and minor repair, and operation of MIG welding equipment. Upon completion, students should be able to make industry-acceptable welds on flat plate, round, and box tubing made of mild carbon steel.

RCT 254. Racing Chassis Fabrication. 5.0 Credits. Class-2.0. Clinical-0.0. Lab-9.0. Work-0.0
This course covers racing chassis fabrication following either a professionally prepared blueprint or a personal design. Topics include cutting and fitting different types of tubing, and the proper use of specialized fabrication equipment necessary to build various race car components. Upon completion, students should be able to build a racing chassis with the correct geometric angles to racing industry standards.
RCT 255. Racing Sheet Metal Fabrication. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers skills using various tools and equipment necessary to make interior and exterior sheet metal panels. Emphasis is placed on cutting, bending, and shaping sheet metal into the various parts necessary to build a race car. Upon completion, students should be able to fabricate, form, and fit various sheet metal components to racing industry standards.

Reading (RED)

RED 111. Critical Reading for College. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines.

Real Estate (RLS)

RLS 113. Real Estate Mathematics. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

RLS 114. Real Estate Brokerage. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides basic instruction in the various real estate brokerage operations, including trust account records and procedures. Topics include establishing a brokerage firm, management concepts and practices, personnel and training, property management, advertising and publicity, records and bookkeeping systems, and financial operations. Upon completion, students should be able to establish, operate, and manage a realty brokerage practice in a manner which protects and serves the public interest.

RLS 115. Real Estate Finance. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides advanced instruction in financing real estate transactions and real property valuation. Topics include sources of mortgage funds, financing instruments, mortgage types, loan underwriting, essential mathematics, and property valuation. Upon completion, students should be able to demonstrate knowledge of real estate finance necessary to act as real estate brokers.

RLS 116. Real Estate Law. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides advanced instruction in legal aspects of real estate brokerage. Topics include property ownership and interests, brokerage relationships, agency law, contracts, settlement statements, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate knowledge of laws relating to real estate brokerage necessary to act as real estate brokers.

RLS 117. Real Property Management. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the principles and practices employed in the management of income-producing properties. Topics include accounting and budgeting techniques, leases and contracts, tenant selection, marketing and investment analysis, and other responsibilities of the property manager. Upon completion, students should be able to read and analyze a property management plan.

RLS 214. Construction Mthd/Materials. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the design of residential structures and the materials, methods, and systems utilized in their construction. Topics include architectural and site considerations, building codes and inspections, cooling and heating systems, and interior/exterior materials. Upon completion, students should be able to identify architectural styles, cabinetry, doors, roofs, windows, and interior/exterior materials and describe environmental concerns.

RLS 215. Critical Reading College-Level. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines.

RLS 216. Land Use Controls. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course analyzes private and public issues germane to the “highest and best use” of real property. Topics include the property survey, zoning ordinances, financing, and other considerations appropriate to the development of real property. Upon completion, students should be able to explain public policies and considerations regarding the uses and development of private property.

RLS 217. Real Property Appraisal. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the entire valuation process for real property. Topics include basic real property law, concepts of value, operations of real estate markets, mathematical and statistical concepts, and residential construction and design. Upon completion, students should be able to read and interpret a form appraisal.

RLS 218. Intro Real Prop Valuation. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces techniques necessary to compare alternative real estate investments. Topics include analysis of positive and negative cash flows, risk and return, acquisition, ownership, disposition of real property, and tax considerations. Upon completion, students should be able to select from alternative investment opportunities.

Real Estate Appraisal (REA)

REA 113. Applied Residential Property Val R-3. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the laws and standards practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination.
Religion (REL)

REL 110. World Religions. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the world’s major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 111. Eastern Religions. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the major Asian religious traditions. Topics include Hinduism, Buddhism, Taoism, Confucianism, and Shinto. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 112. Western Religions. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the major western religious traditions. Topics include Zoroastrianism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 211. Introduction to Old Testament. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 212. Introduction to New Testament. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of the literature of first-century Christianity with readings from the gospels, Acts, and the Pauline and pastoral letters. Topics include the literary structure, audience, and religious perspective of the writings, as well as the historical and cultural context of the early Christian community. Upon completion, students should be able to use the tools of critical analysis to read and understand New Testament literature. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

REL 221. Religion in America. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

Respiratory Care (RCP)

RCP 110. Intro to Respiratory Care. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the respiratory care profession. Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Prerequisites: Take BIO 163 BIO 165 BIO 166 BIO 168 or BIO 169 with a minimum grade of C

RCP 111. Therapeutics/Diagnostics. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is a continuation of RCP 110. Emphasis is placed on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 112. Patient Management. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides entry-level skills in adult/pediatric mechanical ventilation and respiratory care procedures in traditional and alternative settings. Emphasis is placed on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.

RCP 113. RCP Pharmacology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the drugs used in the treatment of cardiopulmonary diseases. Emphasis is placed on the uses, actions, indications, administration, and hazards of pharmacological agents. Upon completion, students should be able to demonstrate competence through written evaluations. Prerequisites: Take BIO 163 BIO 165 BIO 166 BIO 168 or BIO 169 with a minimum grade of C
Corequisites: RCP 110

RCP 114. C-P Anatomy & Physiology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of respiratory care. Emphasis is placed on cardiovascular and pulmonary physiology, acid/base balance, and blood gas interpretation. Upon completion, students should be able to demonstrate competence in these concepts through written evaluation.

RCP 115. C-P Pathophysiology. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the etiology, pathogenesis, and physiology of cardiopulmonary diseases and disorders. Emphasis is placed on clinical signs and symptoms along with diagnoses, complications, prognoses, and management. Upon completion, students should be able to demonstrate competence in these concepts through written evaluations.
College-Level Courses

RCP 122. Special Practice Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.
Prerequisites: Take BIO 163 BIO 165 BIO 166 BIO 168 or BIO 169 with a minimum grade of C
Corequisites: RCP 113

RCP 123. Special Practice Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.
Prerequisites: Take BIO 163 BIO 165 BIO 166 BIO 168 or BIO 169 with a minimum grade of C
Corequisites: RCP 113

RCP 132. RCP Clinical Practice I. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 144. RCP Clinical Practice II. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 145. RCP Clinical Practice II. 5.0 Credits. Class-0.0. Clinical-15.0. Lab-0.0. Work-0.0
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: Take RCP 110 RCP 113 RCP 114 with a minimum grade of C
Corequisites: RCP 111

RCP 152. RCP Clinical Practice III. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course provides entry-level clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: Take RCP 111 RCP 115 RCP 145 with a minimum grade of C

RCP 210. Critical Care Concepts. 4.0 Credits. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations.
Prerequisites: Take RCP 111 RCP 115 RCP 145 RCP 152 MED 120 MAT 140 with a minimum grade of C
Corequisites: RCP 222

RCP 211. Advanced Monitoring/Procedures. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-3.0. Work-0.0
This course includes advanced information gathering and decision making for the respiratory care professional. Topics include advanced cardiac monitoring and special procedures. Upon completion, students should be able to evaluate, design, and recommend appropriate care plans through written and laboratory evaluations.
Prerequisites: Take RCP 210 RCP 214 RCP 235 RCP 222 with a minimum grade of C
Corequisites: RCP 247

RCP 215. Career Prep-Adv Level. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides preparation for employment and the advanced-level practitioner credentialing exam. Emphasis is placed on review of the NBRC Advanced-Level Practitioner Exam and supervision and management. Upon completion, students should be able to successfully complete the appropriate self-assessment examinations and meet the requirements for employment.

RCP 222. Special Practice Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.
Prerequisites: Take RCP 111 RCP 115 RCP 145 RCP 152 with a minimum grade of C

RCP 223. Special Practice Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides additional laboratory learning opportunities in respiratory care. Emphasis is placed on therapeutic procedures and equipment management. Upon completion, students should be able to demonstrate competence in concepts and procedures through laboratory evaluations.

RCP 235. RCP Clinical Practice IV. 5.0 Credits. Class-0.0. Clinical-15.0. Lab-0.0. Work-0.0
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: Take RCP 111 RCP 115 RCP 145 RCP 152 with a minimum grade of C
Corequisites: RCP 210
RCP 237. RCP Clinical Practice IV. 7.0 Credits. Class-0.0. Clinical-21.0. Lab-0.0. Work-0.0
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

RCP 247. RCP Clinical Practice V. 7.0 Credits. Class-0.0. Clinical-21.0. Lab-0.0. Work-0.0
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.
Prerequisites: Take RCP 210 RCP 211 RCP 214 RCP 222 RCP 235 with a minimum grade of C
Corequisites: RCP 211

RCP 248. RCP Clinical Practice V. 8.0 Credits. Class-0.0. Clinical-24.0. Lab-0.0. Work-0.0
This course provides advanced practitioner clinical experience. Emphasis is placed on therapeutic and diagnostic patient care. Upon completion, students should be able to demonstrate clinical competence in required performance evaluations.

Selected Topics (SEL)

SEL 191. Selected Topics in _________. 1.0 Credit. Class-1.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEL 192. Selected Topics in _________. 2.0 Credits. Class-2.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEL 193. Selected Topics in _________. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEL 291. Selected Topics in _________. 1.0 Credit. Class-1.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEL 292. Selected Topics in _________. 2.0 Credits. Class-2.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEL 293. Selected Topics in _________. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on the subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

Seminar (SEM)

SEM 196. Seminar in _________. 1.0 Credit. Class-1.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SEM 197. Seminar in _________. 2.0 Credits. Class-2.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SEM 198. Seminar in _________. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SEM 296. Seminar in _________. 1.0 Credit. Class-1.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, student should be able to analyze issues and establish informed opinions.

SEM 297. Seminar in _________. 2.0 Credits. Class-2.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

SEM 298. Seminar in _________. 3.0 Credits. Class-3.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore topics of current interest. Emphasis is placed on the development of critical listening skills and the presentation of seminar issues. Upon completion, students should be able to critically analyze issues and establish informed opinions.

Simulation & Game Development (SGD)

SGD 111. Introduction to Simulation and Game Development. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides students with an introduction to simulation and game development. Topics include setting, storytelling, narrative, character design, interface design, game play, internal economy, core mechanics, game genres, AI, the psychology of game design and professionalism. Upon completion, students should be able to demonstrate knowledge of the major aspects of simulation and game design and development.
SGD 112. Simulation and Game Development Design. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the fundamentals of simulation and game design.  
Topics include industry standards and design elements for simulation  
and games. Upon completion, students should be able to design simple  
simulations and/or games.

SGD 113. Simulation and Game Development Programming. 3.0  
Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the fundamentals of programming languages  
and tools employed in simulation and game development. Emphasis is  
placed on programming concepts used to create simulations and games.  
Upon completion, students should be able to program simple games  
and/or simulations.

SGD 114. 3D Modeling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0.  
Work-0.0  
This course introduces the tools required to create three-dimensional  
(3D) models. Emphasis is placed on exploring tools used to create 3D  
models. Upon completion, students should be able to create and animate  
3D models using 3D modeling tools.

SGD 115. Physically-Based Modeling. 3.0 Credits. Class-2.0.  
Clinical-0.0. Lab-2.0. Work-0.0  
This course introduces fundamental physical concepts as applied to  
the simulation and game design fields. Topics include hands-on programming  
of vectors, matrices, graphical analyses, forces, laws of motion,  
work, energy, momentum, properties of matter, and problem-solving  
methods. Upon completion, students should be able to demonstrate an  
understanding of the principles studied as applied to the simulation and  
game design fields.

SGD 116. Graphic Design Tools. 3.0 Credits. Class-2.0. Clinical-0.0.  
Lab-2.0. Work-0.0  
This course introduces students to computer-based graphic design tools  
and their use within the context of simulation and game design. Topics  
include texture creation, map creation, and introduction to advanced level  
graphic design techniques. Upon completion, students should be able to  
competently use and explain industry-standard graphic design software.

SGD 117. Art for Games. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0.  
Work-0.0  
This course introduces students to the basic principles of art and how  
they apply to simulations and games. Emphasis is placed on learning to  
develop industry quality concept art for characters and other assets, as  
well as techniques needed to create such art. Upon completion, students  
should be able to create their own industry standard concept art for use in  
SGD projects.

SGD 122. Simulation and Game Database Programming. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course covers the creation and application of databases for  
simulation and game development. Emphasis is placed on various  
database and software development kits. Upon completion, students  
should be able to apply their knowledge of databases to the creation of  
simulations and games.

SGD 123. Windows and Console Programming. 3.0 Credits. Class-2.0.  
Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the concepts of Windows and Console  
Programming. Emphasis is placed on learning MS Windows, the operating  
systems of various consoles and programming techniques. Upon  
completion, students should be able to demonstrate an understanding of  
Windows and of various consoles' operating systems.

SGD 124. Massive Multiplayer Online Programming. 2.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the concepts of Massive On-line Programming  
for simulations and games. Emphasis is on learning Massive Multiplayer  
On-line simulation and game programming techniques. Upon completion,  
students should be able to create Massive Multiplayer On-line simulation  
or game.

SGD 125. Simulation and Game Artificial Intelligence. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the artificial intelligence concepts related to  
simulation and game development. Emphasis is placed on expert systems.  
Upon completion, students should be able to describe the basic concepts  
and procedures related to the development of artificial intelligence systems  
used in simulation and games.

SGD 126. Simulation and Game Engine Design. 3.0 Credits. Class-2.0.  
Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the techniques needed to design and create a  
simulation/game engine. Emphasis is placed on learning core techniques  
used to design and create simulation and/or game engines. Upon  
completion, students should be able to design and create a simulation or  
game engine.

SGD 134. SG Quality Assurance. 3.0 Credits. Class-2.0. Clinical-0.0.  
Lab-2.0. Work-0.0  
This course provides students with an overview of serious games and their  
applications in immersive learning and education. Emphasis is placed on  
developing games for education, corporate training, and medical/military  
simulations. Upon completion, students should be able to design their own  
serious games.

SGD 158. SGD Business Management. 3.0 Credits. Class-3.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces the business side of the interactive game industry.  
Emphasis will be placed on licenses, serious games, psychological  
profiling, publisher/developer relations, and contract negotiation skills.  
Upon completion, students should be able to understand how a game  
evolves from concept to the customer.

SGD 159. SGD Production Management. 3.0 Credits. Class-3.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces the techniques and methods used in interactive  
game production and how to manage a project. Emphasis is placed on  
scheduling, production plans, marketing and budgeting. Upon completion,  
students should be able to manage a team, track production, and  
understand the process of project management.

SGD 161. Simulation and Game Animation. 3.0 Credits. Class-2.0.  
Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the fundamental principles of animation used  
in simulation and game development. Emphasis is placed on historical  
survey of animation, aspects of the animation process and animation  
techniques. Upon completion, students should be able to produce  
character sketches, morph simple objects, create walk and run cycles and  
develop professional storyboards.
SGD 162. Simulation and Game 3-D Animation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the fundamental principles of 3D animation used in simulation and game development. Emphasis is placed on a historical survey of 3D animation, aspects of the 3D animation techniques. Upon completion, students should be able to produce 3D character sketches, morph simple objects, create walk and run cycles and develop professional storyboards.

SGD 163. Simulation and Game Documentation. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the techniques and methods used to create simulation and game production and design documents. Emphasis is placed on the design document to include scheduling, production plans, marketing and budgeting. Upon completion, students should be able to design and produce documents for any simulation or game.

SGD 164. Simulation and Game Audio and Video. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces various aspects of audio and video and their application in simulations and games. Topics include techniques for producing and editing audio and video for multiple digital mediums. Upon completion, students should be able to produce and edit audio and video for simulations and games.

SGD 165. Simulation and Game Character Development. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts needed to create fictional personality for use in digital videos, animations, simulations and games. Topics include aspects of character, developing backgrounds, mannerisms and voice. Upon completion, students should be able to develop characters and backgrounds for simulations and games.

SGD 166. Simulation and Game Physiology and Kinesiology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principles of simulation and game development. Topics include analysis of the human form and other living organisms. Upon completion, students should be able to demonstrate an understanding of the physiology and kinesiology concepts related to simulation and game development.

SGD 167. Simulation and Game Ethics. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces principles of philosophy and ethics as they relate to simulation and game development. Topics include moral philosophy and ethics. Upon completion, students should be able to discuss philosophical and ethical issues related to simulation and game development.

SGD 168. Mobile Simulation and Game Programming I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the mobile simulation and game programming process. Topics include mobile simulation/game programming, performance tuning, animation, sound effects, music, and mobile networks. Upon completion, students should be able to apply simulation/game programming concepts to the creation of mobile simulations and games.

SGD 169. Linux Simulation and Game Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts of Linux programming for use in simulation and game development. Emphasis is placed on Linux programming and tools. Upon completion, students should be able to create a simple game or simulation using Linux.

SGD 170. Handheld Simulation and Game Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts of hand-held simulation and game development. Emphasis is placed on hand-held game API, including stylus input, system buttons, infrared communications audio/visual creation and the physics of hand-held game API. Upon completion, students should be able to create a simple simulation or game for a hand-held device.

SGD 171. Flash Simulation and Game Programming. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the Flash programming environment for use in simulation and game development. Topics include timeline effects, extensibility layers, alias text, globalization tools, ActionScript and lingo programming. Upon completion, students should be able to create a simple simulation or game using Flash.

SGD 172. Virtual Simulation and Game Environments. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the use of virtual reality tools and techniques in simulation and game development. Emphasis is placed on acquiring the skills necessary to create scalable virtual characters and environments for use in simulations and games. Upon completion, students should be able to create a simple game or simulation in a virtual environment.

SGD 173. Lighting and Shading Algorithms. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the concepts of various lighting and shading algorithms for use in simulation and game development. Topics include various tools used to create light and shadows. Upon completion, students should be able to apply knowledge of various lighting and shading algorithms to the creation of simulation and games.

SGD 174. Simulation and Game Level Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the tools used to create levels for real-time simulation and games. Topics include level design, architecture theory, modeling for 3D engines and texturing methods. Upon completion, students should be able to design simple levels using industry standard tools.

SGD 181. Machinima. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers machinima techniques in the simulation and game industry. Emphasis is placed on developing movies and animations within industry-standard game engines for simulations and games. Upon completion, students should be able to demonstrate a basic understanding of in-game cinematic creation.

SGD 193. Selected Topics in Simulation & Game Dev. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SGD 210. 3D Data Capture. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces students to the tools used to capture data in a 3D environment. Emphasis is placed on capturing data from motion capture and/or 3D scanning devices for use in 3D models and animations. Upon completion, students should be able to capture data from a 3D environment and import for use in 3D models, simulations, and animations.
SGD 212. Simulation and Game Development Desing II. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course covers the advanced principles of simulation and game  
design. Topics include advanced design concepts in simulation and game  
development. Upon completion, students should be able to design an  
advanced simulation or game.

SGD 213. Simulation Game Development Programming II. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course covers advanced programming concepts used to create  
simulations and games. Emphasis is placed on acquiring advanced  
programming skills for use in creating simulations and games. Upon  
completion, students should be able to program an advanced simulation  
or game.

SGD 214. 3D Modeling II. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the tools used to create and animate advanced  
3 dimensional models. Emphasis is placed on identifying and utilizing  
the tools required to create and animate advanced 3D models. Upon  
completion, students should be able to create and animate advanced 3D  
models using 3D modeling tools.

SGD 215. Advanced Physically-Based Modeling. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0  
This course is designed to introduce advanced 3D motion and interaction  
of objects. Emphasis is placed on vector systems, 3D motion calculations  
using derivatives and integrals through hands-on programming. Upon  
completion, students should be able to demonstrate an understanding  
of the principles of 3D simulations.

SGD 232. Survey of Game Engines. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides students with an overview of various types of  
game engines. Emphasis is placed on acquiring industry-standard game  
engines. Upon completion, students should be able to demonstrate a basic  
understanding of the different types of game engines.

SGD 237. Rigging 3D Models. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course covers the fundamentals of rigging 3D models for animation.  
Emphasis is placed on learning how to properly weight a model, rig it with  
a skeleton, and create fluid movement. Upon completion, students should  
be able to demonstrate the ability to properly rig 3D models.

SGD 244. 3D Modeling III. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course is designed to further a student’s knowledge in creating  
visually compelling 3D models through the use of industry-standard  
software. Emphasis is placed on learning how to develop accurate  
textures and normal maps. Upon completion, students should be able to  
develop industry caliber 3D models.

SGD 268. Mobile Simulation and Game Programming II. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces advanced mobile simulation and game  
programming processes. Topics include advanced mobile simulation/  
game platforms, performance tuning, animation, sound effects, music,  
and mobile networks. Upon completion, students should be able to apply  
advanced simulation/game programming concepts to the creation of  
mobile simulations and games.

SGD 271. Advanced Flash Programming. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course is designed to expand students' previous knowledge of  
the Flash programming environment. Emphasis is placed on learning  
advanced Flash techniques for use in the simulation and game industry.  
Upon completion, students should be able to create industry-quality  
simulations or games using Flash.

SGD 274. Simulation and Game Level Design II. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces the advanced tools used to create levels for real-  
time simulations and games. Topics include advanced level guide and  
architecture theory, concepts related to "critical path" and "flow," game  
balancing, playtesting and storytelling. Upon completion, students should  
be able to design complex levels using industry standard tools.

SGD 285. Simulation and Game Software Engineering. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course introduces object oriented software engineering concepts  
related to simulation and game development. Topics include systematic  
approaches to the development, operation and maintenance of simulations  
and games. Upon completion, students should be able to apply software  
engineering techniques to the development of simulations and games.

SGD 289. Simulation and Game Development Project. 3.0 Credits.  
Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0  
This course provides students with the opportunity to create a functional  
simulation or game with minimal instructor support. Emphasis is placed  
upon verbal and written communication, skill documentation, professional  
presentation and user training. Upon completion, students should be able  
to create and professionally present a fully functional simulation or game.

Sociology (SOC)

SOC 210. Introduction to Sociology. 3.0 Credits.  
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course introduces the scientific study of human society, culture,  
and social interactions. Topics include socialization, research methods,  
diversity and inequality, cooperation and conflict, social change, social  
institutions, and organizations. Upon completion, students should be able  
to demonstrate knowledge of sociological concepts as they apply to the  
interplay among individuals, groups, and societies. This course has been  
aproved to satisfy the Comprehensive Articulation Agreement general  
education core requirement in social/behavioral sciences.  
Prerequisites: Complete one of the following options:  
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C  
• Take ENG 095 ENG 095A with a minimum grade of C  
• Take RED 090 EFL 111 with a minimum grade of C  
• Take EFL 111 EFL 112 with a minimum grade of C  
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C  
• Take RED 090 EFL 111 with a minimum grade of C  
• Take ENG 111 with a minimum grade of C
SOC 220. Social Problems. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C

SOC 225. Social Diversity. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in social/behavioral sciences.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take ENG 112 with a minimum grade of C
• Take ENG 113 with a minimum grade of C
• Take ENG 114 with a minimum grade of C

SOC 234. Sociology of Gender. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines contemporary roles in society with special emphasis on recent changes. Topics include sex role socialization, myths and stereotypes, gender issues related to family, work, and power. Upon completion, students should be able to analyze modern relationships between men and women.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take ENG 111 with a minimum grade of C
• Take ENG 112 with a minimum grade of C
• Take ENG 113 with a minimum grade of C
• Take ENG 114 with a minimum grade of C

Spanish (SPA)

SPA 111. Elementary Spanish I. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Complete one of the following options:
• Take RED 090 ENG 090 ENG 090A with a minimum grade of C
• Take ENG 095 ENG 095A with a minimum grade of C
• Take EFL 111 EFL 112 with a minimum grade of C
• Take ENG 090 ENG 090A EFL 112 with a minimum grade of C
• Take RED 090 EFL 111 with a minimum grade of C
• Take ENG 111 with a minimum grade of C
Corequisites: SPA 181

SPA 112. Elementary Spanish II. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.
Prerequisites: Take SPA 111 SPA 181 with a minimum grade of C
Corequisites: SPA 182

SPA 120. Spanish for the Workplace. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career-specific vocabulary that targets health, business, and/or public service professions. Upon completion, students should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.
**College-Level Courses**

**SPA 141. Culture and Civilization. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity to explore issues related to the Hispanic world. Topics include historical and current events, geography, and customs. Upon completion, students should be able to identify and discuss selected topics and cultural differences related to the Hispanic world. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 151. Hispanic Literature. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes selected readings by Hispanic writers. Topics include fictional and non-fictional works by representative authors from a variety of genres and literary periods. Upon completion, students should be able to analyze and discuss selected texts within relevant cultural and historical contexts. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take ENG 111 with a minimum grade of C

**SPA 161. Cultural Immersion. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course explores Hispanic culture through intensive study on campus and field experience in a host country or area. Topics include an overview of linguistic, historical, geographical, sociopolitical, economic, and/or artistic concerns of the area visited. Upon completion, students should be able to exhibit first-hand knowledge of issues pertinent to the host area and demonstrate understanding of cultural differences. Prerequisites: Take SPA 111 with a minimum grade of C

**SPA 181. Spanish Lab 1. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**SPA 182. Spanish Lab 2. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take SPA 111 SPA 181 with a minimum grade of C

**SPA 211. Intermediate Spanish I. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Take SPA 112 SPA 182 with a minimum grade of C Corequisites: SPA 281

**SPA 212. Intermediate Spanish II. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts. Prerequisites: Take SPA 211 SPA 281 with a minimum grade of C Corequisites: SPA 282

**SPA 221. Spanish Conversation. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity for intensive communication in spoken Spanish. Emphasis is placed on vocabulary acquisition and interactive communication through the discussion of media materials and authentic texts. Upon completion, students should be able to discuss selected topics, express ideas and opinions clearly, and engage in formal and informal conversations. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take SPA 212 with a minimum grade of C

**SPA 281. Spanish Lab 3. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement. Prerequisites: Take SPA 112 SPA 182 with a minimum grade of C Corequisites: SPA 211

**SPA 282. Spanish Lab 4. 1.0 Credit.** Class-0.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication. This course has been approved to satisfy the Comprehensive Articulation Agreement pre-major and/or elective course requirement.

**Substance Abuse (SAB)**

**SAB 110. Substance Abuse Overview. 3.0 Credits.** Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.
SAB 120. Intake and Assessment. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based and stimulation of client introspection. Topics include diagnosis criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling and terminate the counseling process. This course is a unique concentration requirement of the substance abuse concentration in the human services technology program.

SAB 125. SA Case Management. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking.

SAB 135. Addictive Process. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course explores the physical, emotional, psychological, and cultural aspects of the addictive process. Emphasis is placed on addictions to food, sex, alcohol, drugs, work, gambling, and relationships. Upon completion, students should be able to identify the effects, prevention strategies, and treatment methods associated with addictive disorders.

SAB 210. Sub Abuse Counseling. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change. Prerequisites: Take HSE 125 with a minimum grade of C

SAB 220. Group Techniques/Therapy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides a practical guide to diverse methods of group therapy models used in the specific treatment of substance abuse and addiction. Emphasis is placed on the theory and practice of group therapy models specifically designed to treat the cognitive distortions of addiction and substance abuse. Upon completion, students should be able to skillfully practice the group dynamics and techniques formulated for substance abuse and addiction.

SAB 230. Family Therapy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the theories and models of family systems therapy as designed for families affected by substance abuse and addiction. Emphasis is placed on structures and procedures necessary for successful family therapy, including the needs, types of resistance, and individual family dynamics. Upon completion, students should be able to understand and identify dynamics and patterns unique to families affected by substance abuse and the appropriate model of treatment.

SAB 240. Sab Issues in Client Serv. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces systems of professional standards, values and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-Making models to current issues. This course is a unique concentration requirement of the substance abuse concentration in the human services technology program.

Surgery (SUR)

SUR 110. Intro to Surgical Technology. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.

SUR 111. Periop Patient Care. 7.0 Credits. Class-5.0. Clinical-0.0. Lab-6.0. Work-0.0
This course provides the surgical technology student the theoretical knowledge required to function in the pre-operative, intra-operative, and post-operative role. Topics include asepsis, disinfection and sterilization, physical environment, instrumentation, equipment, peri-operative patient care, and peri-operative case management. Upon completion, students should be able to apply the principles and practice of the peri-operative team member to the operative environment.

SUR 122. Surgical Procedures I. 6.0 Credits. Class-5.0. Clinical-0.0. Lab-3.0. Work-0.0
This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to in the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

SUR 123. Sur Clinical Practice I. 7.0 Credits. Class-0.0. Clinical-21.0. Lab-0.0. Work-0.0
This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.

SUR 134. Surgical Procedures II. 5.0 Credits. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a comprehensive study of intermediate and advanced surgical specialties that students are exposed to in the second clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.
SUR 135. SUR Clinical Practice II. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.

SUR 137. Prof Success Prep. 1.0 Credit. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and team work concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.

SUR 210. Advanced SUR Clinical Practice. 2.0 Credits. Class-0.0. Clinical-6.0. Lab-0.0. Work-0.0
This course is designed to provide individualized experience in advanced practice, education, circulating, and managerial skills. Emphasis is placed on developing and demonstrating proficiency in skills necessary for advanced practice. Upon completion, students should be able to assume leadership roles in a chosen specialty area.
Prerequisites: Take SUR 135 with a minimum grade of C

SUR 211. Advanced Theoretical Concepts. 2.0 Credits. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers theoretical knowledge required for extension of the surgical technologist role. Emphasis is placed on advanced practice in complex surgical specialties, educational methodologies, and managerial skills. Upon completion, students should be able to assume leadership roles in a chosen specialty area.
Prerequisites: Take SUR 134 with a minimum grade of C

SUR 212. Surgical Clinical Supplement. 4.0 Credits. Class-0.0. Clinical-12.0. Lab-0.0. Work-0.0
This course provides the opportunity to continue mastering the continuity of care in the peri-operative assignment. Emphasis is placed on maintaining and enhancing acquired clinical skills in the peri-operative setting. Upon completion, students should be able to demonstrate mastery of surgical techniques in the role of the entry level surgical technologist.

Surveying (SRV)

SRV 110. Surveying I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the theory and practice of plane surveying. Topics include the precise measurement of distances, angles, and elevations; bearing, azimuth and traverse computations; topography and mapping. Upon completion, students should be able to use/care for surveying equipment, collect field survey data, perform traverse computations and create a contour map.

SRV 111. Surveying II. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

SRV 112. Landscape Arch Surveying. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers surveying techniques commonly used by landscape architects and contractors. Topics include boundary and topographic surveying. Upon completion students should be able to create boundary and topo maps and layout construction projects both on paper and in the field.
Prerequisites: Take MAT 101 MAT 110 MAT 115 MAT 120 MAT 121 MAT 161 MAT 171 or MAT 175 with a minimum grade of C

SRV 210. Surveying III. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.

SRV 211. Introduction to Hydrology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic engineering principles and characteristics of hydrology. Topics include stormwater runoff, pipes, open channel flow and erosion control methods. Upon completion, students should be able to analyze and size gravitational drainage structures.
Prerequisites: Take MAT 121

SRV 220. Surveying Law. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers topographic surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to assume leadership roles in a chosen specialty area.
Prerequisites: Take SUR 135 with a minimum grade of C

SRV 240. Topo/Site Surveying. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers advanced topics in surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.
Prerequisites: Take SUR 110

SRV 250. Advanced Surveying. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers advanced surveying and roadway planning and layout. Topics include the precise measurement of distances, angles, and elevations; bearing, azimuth and traverse computations; topography and mapping. Upon completion, students should be able to use/care for surveying equipment, collect field survey data, perform traverse computations and create a contour map.

430
SRV 260. Field & Office Practices. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers surveying project management, estimating, and responsibilities of surveying personnel. Topics include record-keeping, starting and operating a surveying business, contracts, regulations, taxes, personnel management, and professional ethics. Upon completion, students should be able to understand the requirements of operating a professional land surveying business.

Sustainability Technologies (SST)

SST 110. Introduction to Sustainability. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

SST 120. Energy Use Analysis. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

SST 130. Modeling Renewable Energy. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces software and other technologies used for modeling renewable energy systems. Topics include renewable energy modeling software applications, data analysis, renewable energy sources, and cost of renewable energy systems. Upon completion, students should be able to use appropriate technology to model the effectiveness of renewable energy systems.

SST 140. Green Building and Design Concepts. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

SST 210. Issues in Sustainability. 3.0 Credits. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the long-term impacts and difficulties of applying sustainability concepts in an organization, business, or society. Topics include the application of sustainable technologies and the analysis of affordability, efficiencies, recycling, and small and large-scale design. Upon completion, students should be able to recognize the possible limitations of sustainable technologies and be prepared to reconcile such conflicts.

SST 250. Sustainability Capstone Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces an integrated team approach to a sustainability topic of interest to students, faculty, or professional community. Topics include problem identification, proposal preparation, conceptual design, and an effective project work schedule. Upon completion, students should be able to integrate the many facets of a topic based on environmental sustainability into a completed project.

Telecomm & Network Engineering (TNE)

TNE 111. Campus Networks I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course is designed to introduce the fundamentals of data/computer networks. Topics include an overview of data communication standards, protocols, equipment, and how they are integrating into network topologies and systems. Upon completion, students should be able to demonstrate an understanding of telecommunication and networking.

Transportation Technology (TRN)

TRN 110. Introduction to Transport Technology. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

TRN 120. Basic Transportation Electricity. 5.0 Credits. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm’s Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns. Prerequisites: Take DMA 010 DMA 020 DMA 030

TRN 120A. Basic Transportation Electrical Lab. 1.0 Credit. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a lab that allows students to enhance their understanding of electrical components and circuits used in the transportation industry. Topics include inspection, diagnosis, and repair of electrical components and circuits using appropriate service information for specific transportation systems. Upon completion, students should be able to diagnose and service electrical components and circuits used in transportation systems.

TRN 140. Transportation Climate Control. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.
**TRF 110. Introduction Turfgrass Cultivation & Identification. 4.0 Credits.** Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawns. Topics include principles of reproduction, growth development, species characteristics, establishment and maintenance of golf courses and sports fields, and lawn applications. Upon completion, students should be able to identify turfgrass species and develop an establishment and maintenance plan for high quality turf areas in accordance with sustainable practices.

**TRF 120. Turfgrass Irrigation and Design. 4.0 Credits.** Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

**TRF 152. Landscape Maintenance. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

**TRF 120. Turfgrass Irrigation and Design. 4.0 Credits.** Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

**TRF 152. Landscape Maintenance. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

**TRF 120. Turfgrass Irrigation and Design. 4.0 Credits.** Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course covers the basic techniques involved in the design, layout, installation, and use of water-wise turfgrass irrigation systems. Topics include types of irrigation systems, components of the systems, materials available for use, and economic considerations. Upon completion, students should be able to complete a functional design for a turfgrass irrigation system according to sustainable practices.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

**TRF 152. Landscape Maintenance. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

**TRF 152. Landscape Maintenance. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.

**TRF 125. Turfgrass Computer App. 2.0 Credits.** Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic computer applications for the turfgrass industry. Emphasis is placed on computer software applications for irrigation design, management, and budget planning for turfgrass applications. Upon completion, students should be able to use appropriate software for various turfgrass management applications.

**TRF 152. Landscape Maintenance. 3.0 Credits.** Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers identification of selected native ground covers and woodland trees by summer and/or winter characteristics. Emphasis is placed on mature age, fall colors, site adaptability, and habit of growth for special turf-related areas. Upon completion, students should be able to identify native plants by size and leaf, bud, twig, and limb formation.
TRF 240. Turfgrass Pest Control. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers detection and identification of turfgrass pests with emphasis on methods of sustainable management. Topics include pest identification with an understanding of pesticides used, application procedures, and costs involved in sustainable management programs. Upon completion, students should be able to identify turfgrass pests, select the proper pesticide, develop pest management programs, and/or use integrated pest management.

TRF 250. Golf /Sport Field Const. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides information for layout, materials, and construction of special recreational applications. Emphasis is placed on site selection, equipment, safety regulations, drainage, turfgrass species, and irrigation needs. Upon completion, students should be able to locate construction reference sites and develop drainage and irrigation plans from their own blueprints and topo map designs.

TRF 260. Adv Turfgrass Mgmt. 4.0 Credits. Class-3.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the principles and practices involved in turfgrass management. Topics include choosing the best management practice in mowing, pest control, fertilization, irrigation, traffic control, air control, budgeting, and materials procurement. Upon completion, students should be able to demonstrate knowledge of the principles covered and select and apply the best practices in turfgrass management.

Web Technologies (WEB)

WEB 110. Internet/Web Fundamentals. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines.

WEB 111. Introduction to Web Graphics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the creation of web graphics, and addressing problems peculiar to WWW display using appropriate software. Topics include web graphics file types, optimization, RGB color, web typography, elementary special effects, transparency, animation, slicing, basic photo manipulation, and other related topics. Upon completion, students should be able to create graphics, such as animated banners, buttons, backgrounds, logos, and manipulate photographic images for Web delivery.

WEB 115. Web Markup and Scripting. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards.

WEB 119. Web Technology Program Orientation. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an opportunity for students to develop the knowledge and skills required to succeed in the Web Technologies program. Emphasis is placed on introducing students to the tools and resources available for Web Technologies. Upon completion, students should be able to use the tools, resources, and services available.

WEB 120. Introduction to Internet Multimedia. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This is the first of two courses covering the creation of internet multimedia. Topics include internet multimedia file types, file-type conversion, acquisition of digital audio/video, streaming audio/video and graphics animation plug-in programs and other related topics. Upon completion, students should be able to create internet multimedia presentations utilizing a variety of methods and applications.

WEB 125. Mobile Web Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to web design for mobile devices. Topics include planning an effective mobile Web site, industry standard Mobile Markup Language, CSS3, multimedia, m-commerce, social media, testing and publishing. Upon completion, students should be able to plan, develop, test, and publish Web content designed for mobile devices. Prerequisites: Take WEB 110
Take WEB 110 with a minimum grade of C

WEB 140. Web Development Tools. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

WEB 141. Mobile Interface Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers current design standards and emerging approaches related to the design and development of user interfaces for mobile devices. Emphasis is placed on research and evaluation of standard and emerging practices for effective interface and user experience design. Upon completion, students should be able to design effective and usable interfaces for mobile devices.

WEB 151. Mobile Application Development I. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to programming technologies, design and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices.

WEB 179. JAVA Web Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the development of dynamic, database-driven web applications using the JAVA programming languages. Topics include Object Oriented Programming JAVA Server Pages, servlets, database interactions, and form handling. Upon completion, students should be able to create and modify JAVA-based internet applications. Prerequisites: Take CSC 151 with a minimum grade of C
College-Level Courses

WEB 180. Active Server Pages. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces active server programming. Topics include HTML forms processing and other issues related to developing active web applications. Upon completion, students should be able to create and maintain a dynamic website.

WEB 182. PHP Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.

WEB 183. Perl Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to the Perl Programming language. Topics include programming techniques using CGI script, input/output operations, sequence, iteration, selection, arithmetic operations, subroutines, modules, integrating database, pattern matching and other related topics. Upon completion, students should be able to design, code, test, and debug Perl language programs.

WEB 185. ColdFusion Programming. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces ColdFusion Programming. Topics include installing a ColdFusion development environment, using CFQUERY tags to send and receive database information, creating and displaying a form, and other related topics. Upon completion, students should be able to design, code, test, and debug using a ColdFusion environment.

WEB 186. XML Technology. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course is designed to introduce students to XML and related internet technologies. Topics include extendible style language (XSL) document object model (DOM), extendible stylesheet language transformation (XSLT), and simple object access protocol (SOAP). Upon completion, students should be able to create a complex XML document.

WEB 210. Web Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites.

WEB 211. Advanced Web Graphics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the advanced concepts related to the creation and manipulation of graphic images for web delivery. Topics include graphics acquisition, use of masks and channels, advanced special effects, advanced photo manipulation, and other related topics. Upon completion, students should be able to create, manipulate, and optimize web graphics with advanced techniques and maintain an online coursework portfolio.

WEB 213. Internet Marketing and Analytics. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to Search Engine Optimization (SEO), Search Engine Marketing (SEM) and web analytics. Topics include Search Engine Optimization (SEO), Pay Per Click advertising (PPC), Search Engine Marketing (SEM), web analytics, eye-tracking software and email marketing. Upon completion, students should be able to set up, monitor and maintain SEO optimized websites; and develop strategies for online marketing and advertising plans.

WEB 214. Social Media. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to social media for organizations. Topics include social media, marketing strategy, brand presence, blogging, social media analytics and technical writing. Upon completion, students should be able to utilize popular social media platforms as part of a marketing strategy, and work with social media analytics tools.

WEB 215. Advanced Markup and Scripting. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support Internet applications. Upon completion, students should be able to design, code, debug, and document Internet-based programming solutions to various real-world problems using an appropriate programming language.

WEB 220. Advanced Multimedia. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This is the second of two courses covering internet multimedia. Topics include use of advanced internet multimedia applications. Upon completion, students should be able to create interactive Internet multimedia presentations.

WEB 225. Content Management Systems. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website.

WEB 230. Implementing Web Servers. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers website and web server architecture. Topics include installation, configuration, administration, and security of web servers, services and sites. Upon completion, students should be able to effectively manage the web services deployment lifecycle according to industry standards.

WEB 240. Internet Security. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers security issues related to Internet services. Topics include the operating system and the Internet service security mechanisms. Upon completion, students should be able to implement security procedures for operating system level and server level alerts.
WEB 250. Database Driven Websites. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.
Prerequisites: Take DBA 110 with a minimum grade of C

WEB 251. Mobile Application Development II. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers advanced applications and custom programming to develop applications for mobile devices. Topics include device capabilities, OS specific Software Development Kits (SDK), scripting for functionality and designing interactivity. Upon completion, students should be able to demonstrate effective programming techniques to develop advanced mobile applications.
Prerequisites: Take WEB 151
Take WEB 151 with a minimum grade of C

WEB 260. E-Commerce Infrastructure. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, documentation, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.

WEB 285. Emerging Web Technologies. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course will explore, discuss, and research emerging technologies in the web arena. Emphasis is placed on exposure to up-and-coming technologies relating to the web, providing hands-on experience, and discussion of practical implications of these emerging fields. Upon completion, students should be able to articulate issues relating to these technologies.

WEB 287. Web E-Portfolio. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course covers the creation and organization of a web-based e-portfolio that includes a resume, references, and comprehensive academic and work samples. Emphasis is placed on creating an e-portfolio with solid design and demonstrable content, the production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to present their own domain with included professional e-portfolio elements of resume, sample work, and related self-promotional materials.

WEB 289. Internet Technologies Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant Web technologies project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete an Internet project from the definition phase through implementation.

WEB 289. Internet Technologies Project. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-4.0. Work-0.0
This course provides an opportunity to complete a significant Web technologies project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete an Internet project from the definition phase through implementation.

Welding (WLD)

WLD 110. Cutting Processes. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 111. Oxy-Fuel Welding. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the oxy-fuel welding process. Topics include safety, proper equipment setup, and operation of oxy-fuel welding equipment with emphasis on bead application, profile, and discontinuities. Upon completion, students should be able to oxy-fuel weld fillets and grooves on plate and pipe in various positions.

WLD 112. Basic Welding Processes. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115. SMAW (stick) Plate. 5.0 Credits. Class-2.0. Clinical-0.0. Lab-9.0. Work-0.0
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD 116. SMAW (stick) Plate/Pipe. 4.0 Credits. Class-1.0. Clinical-0.0. Lab-9.0. Work-0.0
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

WLD 121. GMAW (MIG) FCAW/Plate. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD 122. GMAW (mig) Plate/Pipe. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.
WLD 131. G TAW (TIG) Plate. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD 132. G TAW (Tig) Plate/Pipe. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141. Symbols and Specifications. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding. Prerequisites: Take DMA 010 DMA 020 DMA 030

WLD 143. Welding Metallurgy. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic metallurgy, materials designation, and classification systems used in welding.

WLD 145. Thermoplastic Welding. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the thermoplastic welding processes and materials identification. Topics include filler material selection, identification, joint design, and equipment setup with emphasis on bead types and applications. Upon completion, students should be able to perform fillet and groove welds using thermoplastic materials.

WLD 151. Fabrication I. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment. Prerequisites: Take WLD 110 WLD 116 WLD 121 WLD 131 WLD 141

WLD 190. Special Topics in Welding. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
Welding codes & specifications (procedure & welder qualification- AWSD1.1, ASME 1X, aws b2.1) use of computer software-Mechanical testing application.

WLD 212. Inert Gas Welding. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces inert gas-shielded welding methods (MIG/TIG). Topics include correct selection of consumable and non-consumable electrodes, equipment setup, safety, and welding techniques. Upon completion, students should be able to perform inert gas welding in flat, horizontal, and overhead positions.

WLD 215. SAW (stick) Pipe. 4.0 Credits. Class-1.0. Clinical-0.0. Lab-9.0. Work-0.0
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

WLD 221. GMAW (mig) Pipe. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform GMAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD 231. G TAW (Tig) Pipe. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD 251. Fabrication II. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

WLD 261. Certification Practices. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate, aluminum, stainless steel, and/or pipe according to applicable codes. Upon successful completion of prerequisite courses, students in the welding technology program will be allowed to take weld tests in accordance with AWS QC 10, and/or AWS D1.1, and/or AWS B2.1. A lab fee may be required within this course.

WLD 262. Inspection & Testing. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-2.0. Work-0.0
This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

WLD 265. Automated Welding/Cutting. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.
WLD 270. Orbital Welding TIG/Pipe. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces automated tungsten inert gas (TIG) welding hardware, equipment, and processes required to apply specific, accurate, automated, and consistently repetitive pipe welds. Emphasis is placed on proper identification of automated welding process variables, how each relates to the functionality of orbital equipment and components, and how changes in variables directly influence weld quality. Upon completion, students should be able to produce quality pipe welds through the appropriate operation and control of automated TIG welding equipment.

Wheels of Learning (WOL)

WOL 110. Basic Construction Skills. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the student to basic safety, tools, and skills commonly found in the construction related trades. Topics include safety, basic math, blueprints, hand and power tools, and rigging. Upon completion, students should have successfully completed the Core Curricula as identified by the National center for Construction Education and Research.
Corporate and Continuing Education Courses
Corporate and Continuing Education Courses

Academic Related (ACA)

ACA 8118. College Study Skills for Non-Native Speakers. 0.0 Hours. 
Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

ACA 8200. Preparing for the SAT I. 0.0 Hours. 
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

This course is designed to give the student an understanding of the SAT and how it is scored. This course will also provide strategies on how to take the SAT and how to answer specific types of questions. Emphasis will be placed on general strategies for the entire test, along with specific strategies for all types of math and verbal questions.

Accounting (ACC)

ACC 7001. Cash Flow Analysis. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

This course provides an overview of the cash flow process - the inflow and outflow of cash within a company. Students will acquire a basic understanding of business financial statements, as well as a general overview of what affects cash flow within a company, accruals and deferrals, the cash conversion cycle, net income ratios, monthly cash expenses ratios, depreciation, and net operating losses.

ACC 7003. Fundamentals of Accounting for Non-Financial Managers. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

No matter how effective your management methods or how innovative you are, your company’s results will be measured in dollars and cents. Explore the basics of the accounting process. Learn how transactions are recorded in the accounting system of your organization and how to interpret your company’s financial statements and annual reports.

ACC 7005. Cost Accounting and Management. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Review the principles and objectives of cost accounting, production control, and inventory control, as they relate to management decision making and control processes within a company. Topics covered are Cost Accounting Fundamentals, Balancing of the 3 Factors - Cost, Volume & Profit, Concept of Relevant Information & Decision Making, Activity Based Costing, Cost Allocation Techniques, and Cost Variances & Control.

ACC 7006. Introduction to Peachtree Accounting 2012. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Handle accounting tasks quickly and easily with Peachtree Accounting 2012! With the help of hands-on activities and step-by-step instructions, you’ll quickly master all the skills you need to handle your routine accounting needs. First, you’ll learn to set up accounts for vendors, customers, and inventory items. Next, you’ll master the simple steps for creating invoices, collecting payments, paying bills, and printing checks. After that, you’ll find out how to make journal entries and create trial balances. And what about those tedious end-of-month procedures? With Peachtree, as you’ll see, they’re a snap. Finally, you’ll discover how to produce detailed financial reports that put the information you need right at your fingertips. If you find day-to-day accounting a struggle, Peachtree is the perfect solution for you. With the power of this software on your side, you’ll breeze through those routine accounting chores you used to dread! Offered in partnership with ed2go.

Aerospace and Flight Training (AER)

Agriculture (AGR)

Air Cond, Heating, and Refrig (AHR)

AHR 7000. Introduction to Brazing. 0.0 Hours. 
Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0

AHR 7001. Heating & Air Conditioning for Home Owners. 0.0 Hours. 
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

This class provides home owners a basic understanding of home heating and air conditioning systems. Basic maintenance and operations are covered. This course covers gas furnaces, electric furnaces, heat pumps and central air conditioning systems. These systems will be demonstrated in the lab. No tools are required. This course is not intended to enable home owners to perform service on their systems other than basic maintenance. Servicing of HVAC systems should only be performed by qualified contractors and service technicians.

AHR 7010. Air Conditioning Systems. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Upon completion of this course students will understand the basic fundamentals of environmental control systems for HVAC and will apply this knowledge to troubleshoot a cooling system.

Alternative Energy Technology (ALT)

ALT 7200. Introduction to Alternative Energy. 0.0 Hours. 
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Students will learn the concepts of solar energy, wind energy, biofuels, geothermal energy, tidal energy, and solar thermal energy.

American Institute of Banking (AIB)

AIB 7412. Supervision and Personnel Administration. 0.0 Hours. 
Class-45.0. Clinical-0.0. Lab-0.0. Work-0.0

AIB 8970. Design in Operations of Building Systems Part II. 0.0 Hours. 
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0

Due to increasing demand for economy and energy conservation property and facility managers must develop and maintain and efficient building environment with a workin knowledge of building systems their care and maintain.
American Sign Language (ASL)

ASL 7001. ASL 7001: ASL Placement Test for ASL 111-112. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is used for placement testing into ASL 111, ASL 112. Students must apply to the college and register for this course per standard procedure. Students are advised to contact Keith Cagle, Interpreter Education/ American Sign Language 704.330.4886 for program information and Wanda Acklin, CCE Customer Service, 704.330.4223 for help with the registration process. This course has no fee. It is offered open enrollment spring, summer and fall semesters. The placement test is administered via the Central Campus Testing Center. Contact Halemo Gulied, 704.330.6886.

ASL 7002. ASL 7002: ASL Placement Test for ASL 211-212. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is used for placement testing into ASL 211 or 212. Students must apply to the college and register for this course per standard procedure. Only students authorized by the Interpreter Training Department are allowed to take this test. Contact Keith Cagle, Interpreter Education/ American Sign Language 704.330.4886 for program information and Wanda Acklin, CCE Customer Service for help with the registration process. This course has no fee. It is offered open enrollment spring, summer and fall semesters. The placement test is administered via the Central Campus Testing Center. Contact Halemo Gulied, 704.330.6886.

Animal Science (ANS)

Apprenticeship (APP)

APP 7144. The Uniform Standards of Professional Appraisal Practice (USPAP). 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This National Uniform Standards of Professional Appraisal Practice (USPAP) course fulfills the 15-hour requirement as established by the Appraiser Qualification Board (AOB) and The Appraisal Foundation. Those seeking to become a Registered Trainee must complete APP 7201 and APP 7202 prior to taking this course.

APP 7145. National USPAP Update (7 Hour). 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 7-hour course focuses on the changes to the 2005 edition of the Uniform Standards of Professional Appraisal Practice (USPAP). It also addresses sections of USPAP that have not been changed but have been identified as problem areas. This course is intended to fulfill the 7-hour requirement as established by the Appraisal Qualifications Board (AOB) of The Appraisal Foundation.

APP 7201. Basic Appraisal Principles. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore the appraisal process through discussion of appraisal principles and practical examples. This course meets the pre-qualifying criteria, as established by the North Carolina Appraisal Board.

APP 7202. Basic Appraisal Procedures. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This basic appraisal course provides an overview of real estate appraisal approaches to valuation procedures, value, property description, residential applications, commercial applications, improvement construction, home inspection and appraisal math. Through theory, case studies and examples, the course offers practical application of appraisal procedures. This course meets pre-qualifying criteria established by the North Carolina Appraisal Board. A calculator is recommended.

APP 7203. Market Analysis and Highest and Best Use. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will gain the tools needed to properly collect and analyze market data and determine a property’s highest and best use. This course meets the pre-qualifying criteria, as established by the North Carolina Appraisal Board. Those seeking to become a Registered Trainee must complete APP 7201 and APP 7202 prior to taking this course.

APP 7205. Residential Sales Comparison and Income Approach. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers a basic understanding and knowledge of the residential sales comparison and income approaches to appraisal. It includes the valuation principles and procedures applicable to both approaches. With the aid of case studies, students will develop and apply the techniques for market analysis, including the application and use of matched pairs and capitalization rates and gross rental multipliers. There is a discussion on cash and finance equivalency. Students will learn how to apply and defend the rationale behind market adjustments. The course includes a discussion of current Fannie Mae and Freddie Mac Guidelines and relevant USPAP requirements, and introduces students to the methods of appraising income properties. A combination of theory and hands-on examples provides practical applications of real estate appraisal procedures. A calculator is recommended.

APP 7301. Commercial Appraisal Review Process. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for lenders and loan originators who must review appraisals of commercial properties.

Architecture (ARC)

ARC 7000. Construction Document Analysis. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0

Automotive (AUT)

AUT 7120. Steering and Suspension. 0.0 Hours.
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

AUT 7253. Automotive Electrical Fundamentals. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

AUT 7254. Automotive Electrical Fundamentals. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

AUT 7255. Mechanical Brake Systems Ac Delco. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

AUT 8500. Automotive New Product Training. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

AUT 8700. Automotive Air Brush Techniques. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a beginners level course covering the basics in air brush techniques, color matching, tinting, and graphics for painting freehand designs on automobiles.

Aviation Electronics Tech (AET)

Aviation Maintenance (AVI)
Avocation (AVO)

AVO 8550. Acrylic Art - Mixed Media Collage. 0.0 Hours. Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
Jump start your creativity as you learn to turn your creative ideas into artistic, mixed media collages. Student projects will incorporate differing materials such as newspaper clippings, photographs and more to compose and create a finished piece on canvas board. Students will also learn the use of acrylic media and how to include various techniques like stamp making to enhance their collaged art work.

AVO 8558. Basic Drawing Techniques. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Basic drawing skills are the building blocks of all artistic endeavors. Master basic drawing techniques and build confidence as you learn the fundamentals of drawing, such as shape, form, contrast, texture, light, direction, lines and shadows. Experiment with different tools and materials as you discover your own personal style.

AVO 8570. Introduction to Calligraphy - the Art of Beautiful Writing. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
Discover Calligraphy, simply described as the, "Art of Beautiful Writing." Join us and learn step-by-step how to create unique, one-of-a-kind wedding invitations, announcements and certificates for fun and profit. You will learn five different styles of writing as well as layout and composition to help you create professional-looking finished pieces. Emphasis will be on in-class demonstrations, student mastery and outside assignments to perfect calligraphy techniques and lettering.

AVO 8573. Floral Designs. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Express your creativity in the ever popular art of floral design. You will learn proper care and handling techniques, the elements and principles of design and basic flower arranging skills as you create beautiful arrangements in fresh or silk flowers. Topics include conditioning fresh flowers, using floral foam, tape, wire and more. Bring in outside supplies (even from your own gardens) to finish arrangements in varying styles as you work under the guidance of our expert instructor. This fun and informative course is designed for beginners, but is open to all skill levels. This class is the first of four needed to achieve CPCC's Floral Design Certificate.

AVO 8574. Master Floral Designs. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Join this master class which focuses on form, color and space usage in the more intricate floral designs. Using both fresh and silk flowers, you'll take your flower arranging skills to the next level as you learn to build floral designs that go beyond the concepts taught in Floral Designs (AVO 8573). This class is one of four needed to achieve CPCC's Floral Design Certificate.

AVO 8575. Wedding Flowers. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Planning a wedding? Learn floral design techniques and secrets to create your own arrangements. Focus will be on bridal bouquets, corsages, boutonnieres and altar arrangements.

AVO 8656. Creative Cartooning and Drawing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Use your sense of humor and imagination as you learn creative cartooning. Gain skills in drawing, layout design and comic strip writing. Students will have the opportunity to share their work for feedback and connections via critiques to generate conversation and suggestions for improvement. This class will be taught step-by-step starting with simple line drawings; moving to figure drawings, animals and more detailed subjects. The final goal of the class will be to create a comic book or a story, told in cartoon form and possibly printed as a small book. Please note: All references and drawings will be of non-violent images.

AVO 8657. The Art of Colored Pencils. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Discover the magic of colored pencils! The possibilities are unlimited with this affordable, user-friendly art medium. Using a few colors, then adding more, our instructor will help you layer and blend these versatile tools to produce full color drawings. Tips and techniques allow you to create enchanting pencil-art. Please bring a minimum of 24 Prismacolor? pencils and a 9x12 or 11x14 sketch pad to class. Basic drawing experience helpful.

AVO 8658. "Quick Draw". 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore and enjoy the art of drawing! This eight week "quick" course will offer opportunities to experiment with/and to create finished drawings. Mediums used will include: charcoal, oil pastels, colored pencils, watercolor pencils and markers. Class is taught by Lisa Underwood, accomplished local artist.

AVO 8659. Paper Filigree - the Art of Quilling. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Quilling is a centuries old craft that produces intricate designs, yet is amazingly simple. Through a simple technique of quilling or paper filigree, where strips of thin paper are rolled, shaped and glued together, you'll create decorative unique designs. Choose color copies of clippings or photos to paste onto canvas board along with other papers, and learn additional techniques to create beautiful, meaningful collages. Instructor will cover basic elements of design to help you maximize the impact of your finished pieces.

AVO 8670. Intermediate Calligraphy - The Art of Beautiful Writing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Take your calligraphy skills to the next level! Join us as you continue to practice and master intermediate calligraphy techniques. Use your advanced skills to create wedding invitations, announcements, and certificates for fun and profit. Learn five additional styles of calligraphy, as well as proper layout and composition to help you create professional-looking finished pieces. Emphasis will be placed on in-class demonstrations, student mastery and outside assignments to perfect calligraphy techniques and lettering. Prerequisite: AVO8570-Introduction to Calligraphy or presentation of a satisfactory portfolio.

AVO 8677. Ikebana- The Art of Japanese Floral Design. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Ikebana is a discipline that brings together nature and the humanity of the designer to create a work of art. Loosely translated, ikebana means ? flowers kept alive?. Unlike symmetrical, Western-style flower vase arrangements, ikebana incorporates living material such as branches, leaves, grasses and blossoms into an asymmetrical arrangement. Learn the basic styles and techniques in this centuries old art form, taught by a Sogetsu ikebana certified instructor.
AVO 8710. Sympathy Flowers. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the art of floral tributes in this design class devoted to sympathy flowers and funeral arrangements. Expressions of sympathy can range from fruit and plant baskets, wreathes, crosses or hearts on easels, to the varying types and sizes of casket sprays.

AVO 8720. Stained Glass Workshop. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
From antiquity to Tiffany, people have loved stained glass for its great color, beauty and unique structural and symbolic importance. Learn how artists and hobbyists carry on this tradition in this course designed for beginner as well as experienced students. Beginners will learn to cut, foil and lead solder, as well as learn about patina, pattern selection and transfer, and framing. Experienced students will get advice and guidance on projects of their choice. The instructor will teach the American Style of stained glass techniques. Completed beginner projects will include a sun catcher and a bird.

AVO 8722. Vocal Ensemble. 0.0 Hours. Class-39.0. Clinical-0.0. Lab-0.0. Work-0.0
The newly named Central Piedmont Community Chorus has, since 1977, served as an outlet for learning and performing various styles of music. No auditions are required for class participation. Participants have fun learning, sharing a love for music and performing at various venues in the community.

AVO 8730. Basic Watercolor Techniques. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
It’s time to play in watercolor! Often called the most expressive paint medium, watercolor is sure to help you discover your creative spirit. Start with proper materials including paints, brushes and palettes; add tips and techniques in washes, glazing and more, then experiment with the design concepts of space, composition and color.

AVO 8731. Intermediate Watercolor Techniques. 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore new and refine existing watercolor painting techniques using creative, new approaches in your work. Increase your knowledge and skills through class demonstrations, discussion and critiques. You will also learn to create maturity and drama in your art through the use of sound design principles. Prerequisite: AVO 8730-Basic Watercolor Techniques or classes taken prior that provide an understanding of the basics of watercolor techniques.

AVO 8735. Novice Watercolor. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Dive into watercolor by learning color schemes, composition, how to mix media and masking out. Use the proper tools and techniques to create your own masterpieces. Remember: Winslow Homer started somewhere!

AVO 8745. Open Studio Painting. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Do you need help completing your latest project? Bring your canvas, work-in-progress and supplies to CPCC’s open studio class and receive assistance and expert advice as you perfect your skills in oil or acrylic painting techniques. Paint at your own pace, while under the guidance of a talented, instructor and working artist.

AVO 8746. Basic Oil/Acrylic Painting Technique- Open Studio. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Want to perfect your personal painting style and technique? In this class, you will gain knowledge and insight into intermediate techniques such as palette mixing, color, texture, tone, picture space, and composition. These techniques will all be reviewed and worked with on an individual basis. Bring your current supplies to class the first night. Pre-requisite: AVO 8748-Basic Oil/ Acrylics Painting Techniques. Course note: portable or table top easels are suggested.

AVO 8748. Basic Acrylic Painting Techniques. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
Why wait? Acrylics are extremely versatile, water based paints which dry very quickly. This allows the instructor to share lots of in-class guidance, support and maybe even inspiration. Learn the basics of image composition, color mixing on a palette and paint application. Students will work at their own pace in class, learn along with fellow artists and improve their painting skills. Everyone is welcome, from the absolute beginner to the more experienced painter.

AVO 8760. Portrait Drawing. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn how to create life-like portraits with pencil and charcoal. Working primarily from photographs, you will learn how to capture the personality and likeness of an individual. Explore specific features, additive and subtractive techniques, and the art of drawing self portraits. Pre-requisite: Moderate drawing skills.

AVO 8775. Creating Bead Jewelry. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Study the origin and history of beads and jewelry and how it has impacted today’s costume jewelry. Learn to make bracelets, earrings, necklaces, and key chains using different materials such as glass beads, wood, bone, metal. The techniques learned will provide the groundwork for all jewelry making and repairs.

AVO 8780. Chinese Brush Painting. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the ancient art of Chinese Brush Painting! This meditative art form-initiated during the Southern Sung Dynasty-entails traditional methods of painting treasured symbols of the seasons (bamboo, orchid, plum, and chrysanthemum and others. The course reviews materials, subject matter, and supply sources for this increasingly popular art form.

AVO 8781. Painting With Pastels. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Oil pastels are one of the least expensive and user-friendly art mediums around. They combine the smooth color application of crayon with the brightness of pastels. They store easily, keep well, are easy to use, have no fumes, do not require the use of brushes, aren’t messy, and cleanup is minimal. Changes can be made easily and special framing is not required.

AVO 8782. Painting with Soft Pastels. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Discover the most popular of the pastel media and a fresh approach to creating art. You’ll love pastels’ soft texture and the ability to paint on the colors if you have been used to painting with the wet media of oils and acrylics. Use blending and differing pressure as you learn and practice basic techniques during class discussions and demonstrations. Bring images to class to inspire your work.
AVO 8790. Drawing with Charcoals. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Create expressive, still life charcoal drawings and portraits that stir emotion. Effective compositional arrangement, lighting, shading and exploration of design elements will all be explained and discussed. Instruction will include demonstrations, examples of traditional and contemporary masters and critiques. Prior drawing experience is helpful, but not necessary. Students should bring any supplies they already have to the first class.

AVO 8791. Draw Your Favorite People, Pets and Places. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Create drawings of people, pets and places which capture true likenesses and have the WOW factor. Working from photographs, you will learn to capture atmospheric perspective, likeness and the personality of your subject while exploring a variety of drawing media and tools. Emphasis on proper art principles and elements will be incorporated throughout the course.

AVO 8876. Floral Design Open Studio Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
If you have mastered the in's-and-out's of floral design and now need additional help and guidance completing a solo project or are stumped on an intricate design and need the guidance of an expert, join us for this open studio, floral design workshop. You will receive expert guidance on your solo projects, helping you turn them into works of art. Bring any needed supplies or tools to the first class to begin work on your independent project immediately.

Baking and Pastry Arts (BPA)

BPA 7001. Baking and Pastry Arts Information Session. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is for students needing information on the baking program which includes field trips.

Banking and Finance (BAF)

Biotechnology (BTC)

Blueprint Reading (BPR)

BPR 7000. Basic Blueprint Reading. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
A course covering the fundamentals of reading and interpreting residential blueprints and estimating the quantities of materials and labor required to construct a house.

BPR 7007. Blueprint Reading for General Construction. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for construction supervisors and others currently working in the industry. It includes a comprehensive review of those sections of the North Carolina Residential Building Code applicable to Mecklenburg County residential construction. The class also includes a review of applicable state and local code interpretations, and Mecklenburg County’s code inspection procedures. A County Code Enforcement Official(s) will observe each class, and will conduct an inspection field trip where students will observe an actual code inspection, and have an opportunity to ask questions regarding the inspection and to discuss their concerns.

BPR 7013. Blueprint Rdn & Nc Residential Bldg Code For Carpenters. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed specifically for current residential carpenters who want a better understanding of plan reading, the building codes, and the industry standards that govern carpentry operations. Competency testing is required for certification in blueprint reading (NCCER Wheels of Learning Module # 00105 and 27201-98. Approximately 28 hours of this course is about blueprints, with the remainder focused on code.

BPR 7017. Blueprint Reading for General Construction (Spanish). 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

BPR 8000. Introduction to Blueprint Reading. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the basics of blueprint reading and will review the following topics: Components of a blueprint; how to use a scale; lines of construction; abbreviations, symbols and keynotes; using gridlines to identify plan locations and dimensions. Upon completion students will be able to recognize and identify basic blueprint terms, components and symbols, relate information on blueprints to actual locations on the prints, recognize different classifications of drawings and interpret and use drawing dimensions. Students will also become familiar with Charlotte-Mecklenburg Land Development and NCDOT standard drawings.

Business (BUS)

BUS 7002. Leadership Training - BLUM. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Leadership training for supervisors and managers. This class will cover all areas of leadership: Leadership Generalities, Communication, Leadership Styles, Conflict Management, Intercultural Communication, Teamwork, Time Management, Continuous Improvement.

BUS 7005. Statistical Analysis for Research Methodology. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Using statistical analysis to better understand and present research methods for management analysts.

BUS 7012. Business Writing. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide instruction in effective writing for business purpose.
BUS 7018. Getting Things Done- Managing Time. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help participants evaluate personal styles of organization and time management preferences while suggesting practical techniques for application to make better use of time and space. Purchase book, "How to Make the Most of Your Workday," in the CPCC bookstore prior to attending the first class.

BUS 7036. Statistical Process Control Module 2. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7037. Module 3 Basic Statistics & Exploratory Analysis. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7038. Mod 4 Designing Experiments. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7039. Mod. 5 Statistical Comparisons. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7116. Notary Public I. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Register at least one week or more before class date. Some classes fill completely two to three weeks in advance. Each student is required to purchase the Notary Public Guidebook from the CPCC Bookstore before attending class. Each class is taught by a certified instructor and provides a thorough introduction to the statutes which regulate the acts of North Carolina notaries. The purpose of the education requirement is to enable the applicant to become a responsible, qualified candidate for Notary Public commission.

BUS 7117. Electronic Notary Certification. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will instruct existing North Carolina notaries public in the newly legislated procedure required to exercise electronic notarial acts as set forth by North Carolina’s Secretary of State. Participants must hold a valid commission as a North Carolina notary public to qualify for this certification. The course will cover the N.C. E-Notary Act, eligibility and registration, E-notary processes, technology solutions and providers, ethics reg. E-notarizations, consequences of misconduct, security standards, best practices and departmental recommendations.

BUS 7200. How to Plan and Book Meetings and Seminars. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach Administrative Professionals to plan and book meetings outside their workplace with greater confidence and the expertise of a seasoned meeting planner. Students will be taught meeting planning techniques including site selection, lodging arrangements, credit and billing procedures, meal selection and room set up. Participants will also gain insight into the perils and pitfalls that can await an unprepared meeting planner.

BUS 7301. Executive Overview Workshop for Implementing Lean Six Sigma. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Customized workshop will be designed to help the clients’ leadership team gain a basic understanding of the Lean and Six Sigma methodologies, explore case studies from different industries and learn what it takes to get started with a Lean or Six Sigma deployment.

BUS 7305. Improving Communication through Listening and Speaking. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This one-day course is designed to provide the communication tools to assist participants in establishing and maintaining successful personal and professional relationships by building communication skills through listening and speaking. Discussion points will include the importance and perception of the communication based on the communicator's body language and other non-verbal cues, how to make your office more customer friendly, how to become more effective communicator, and much more.

BUS 7307. Basic, Basic Telephone Skills. 0.0 Hours.
Class-120.0. Clinical-0.0. Lab-0.0. Work-0.0
The single greatest way to a company can distinguish itself from its competition is by the level of service it offers and the higher the level of service your organization offers, the more successful it will be. This module will give the learner basic knowledge of telephone etiquette and how to appropriately answer the telephone for a business.

BUS 7308. Professional Telephone Techniques. 0.0 Hours.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Develop courteous and efficient customer service through professional telephone techniques in just 3 hours. Materials included.

BUS 7309. Assertiveness Without Fear. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn how to identify and overcome barriers to listening and develop effective listening skills. Purchase book, "Listen Up! Hear What's Really Being Said," at the CPCC Bookstore prior to class.

BUS 7310. Listening: Did You Say What I Heard?. 0.0 Hours.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the skills to become more assertive in both personal and professional life in just one day. Purchase book, "Assertiveness Skills," in the CPCC bookstore prior to attending the first class.

BUS 7311. Service Mentality. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This beginning level course will help participants gain confidence in their public speaking ability. Participants will plan, develop and deliver short presentation during class. Each presenter will receive feedback from the instructor and students regarding presentation style, content organization, length, and other topics discussed in class (if applicable). Materials included.

BUS 7314. Presentation Success. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This beginning level course will help participants gain confidence in their public speaking ability. Participants will plan, develop and deliver short presentation during class. Each presenter will receive feedback from the instructor and students regarding presentation style, content organization, length, and other topics discussed in class (if applicable). Materials included.

BUS 7315. Assertiveness Without Fear. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the skills to become more assertive in both personal and professional life in just one day. Purchase the book, "Assertiveness Skills," in the CPCC bookstore prior to attending the first class.

BUS 7316. "tricks, Traps and Intelligent Responses". 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a 3-hour participant centered seminar that provides strategies for social workers to effectively respond to "traps" (obstacles) encountered when dealing with difficult clients, family, and community members by using appropriate "tricks" (skills) and intelligent responses.
BUS 7318. Dealing With Conflict and Negotiation. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Join us for this action packed day class on managing conflict. You will learn some positive facts about conflict along with a discussion on how habits are formed. Time will be spent examining and practicing negotiation skills along with 5 ways to manage conflict. Participants will identify basic needs and how they relate to the subject of the conflict resolution. Tips on becoming better managers will be shared along with an analysis of effective communication skills. Attending this day session will result in your being a more effective manager of conflict situations in the workplace and in other life settings. Materials included.

BUS 7319. Dealing with Difficult People. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This one-day course is designed to provide tools in dealing with difficult people such as learning what triggers certain behaviors, taking ownership of your own behavior, choosing how to respond, and much more. Dealing with Difficult People is intended to help you assess your behaviors, particularly those displayed during conflict. Examine some strategies for putting yourself in charge, instead of letting someone else’s emotions control you and your reactions. One of the objectives is to assist you in becoming a better manager of your day-to-day relationships both at work and at home.

BUS 7321. Handling Change & Negativity in our Day To Day World. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This one-day workshop will focus on the change process. Beginning with a range of beliefs about change, participants will have the opportunity to examine their perception of change. Time will be spent studying the components of managing the change process. Attendees will review changes occurring in the workplace and their role in identifying the components that are working for or against change. In addition, personal goals related to the change process will be examined. Assumptions about change and key concepts from Spencer Johnson’s book, “Who Moved My Cheese”, will be reviewed. Attendees will be better able to understand the change process and apply their learning to changes in their personal and professional lives. Purchase the book, “Who Moved My Cheese”, at CPCC bookstore.

BUS 7322. Keeping Positive in a Negative World. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
During this one-day workshop, attendees will have the opportunity to examine the affects of negativity in their lives. Negative energy producers will be discussed, along with the physical and psychological impacts of negativity. Negativity in the workplace and in one’s personal life will be analyzed. Ideas will be presented on how to cope with this force which drains us at work and in our personal relationships. Participants will leave with the necessary skills in dealing with negative types and how to prevent us from getting consumed by the negativity.

BUS 7328. Managing Projects for Results. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn strategies to manage projects effectively in just one day. Materials included.

BUS 7340. Business Etiquette. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This course identifies types of etiquette, its importance in relation to confidence and credibility, corporate culture, meetings, introductions, and other types of formal and informal business situations.

BUS 7345. Increasing Self-Understanding With Myers Briggs. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will take the Myers Briggs Inventory and learn to interpret results for better self-understanding in personal and professional life. Materials included.

BUS 7360. Replacing Body Language in an E-mail World. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
E-mail, Facebook, Twitter, LinkedIn is this the way we communicate? 55% of communication is body language, 35% is tone of voice, and only 10% of communication is done with words. How to deal in an email and text world giving up on two forms of the way we communicate. Learn how to communicate in a multicultural and diverse workplace.

BUS 7365. Are You Running Your Life? Or Is Your Life Running You?. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Understand time and how to best optimize its use. Learn how to analyze your use of time and cover your distractions and interruptions and learn how to manage them. Introduction to delegation as a tool to clear time from your busy schedule. Why do people procrastinate? Answer: They don’t have a system. Participants will leave the class with a very detailed action plan to improve their use of time both in the workplace and at home.

BUS 7370. Mathematical Models for Process Improvement. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This training is designed to give participants a review of basics, such as simple calculations and rounding in preparation for specific instruction in percentages to allow them to calculate percent, ratio, formulas, statistics, and control charts.

BUS 7375. Leadership in the Workplace. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn to understand their own personal behavioral styles as well as their leadership styles and how these two styles influence how they lead and what areas of leadership should be improved. Students will also use this learning to deflect potential conflict and resolve existing conflict in a multi-cultural work environment.

BUS 7380. Mentor Training - Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operations trainers have the responsibility of ensuring that their trainees learn all the required steps and details of the tasks being trained so that they can meet the safety, quality and efficiency requirements of the job. Trainers/mentors must be able to communicate the information effectively and verify that the trainees have understood and internalized what they have learned and can demonstrate ability to perform the trained tasks. Mentors must also act as leaders and role models in training, communicating and demonstrating critical behaviors and attitudes. This course provides training and practice in tools and methods to drive consistency of training methodology and to elevate performance as a trainer/leader.

BUS 7385. Intercultural Awareness Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Increase the level of knowledge and understanding of the similarities and difference involved in working with individuals from a different country of origin. Communicating and working with other cultures.

BUS 7400. Making the Transition to Management. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to meet universal needs of new supervisors making the transition to management. Topics addressed will include the role of the manager, understanding basic needs of employees, setting expectations with employees, providing recognition and feedback, and making the shift from "doing" to "managing." Purchase book, "Managers as Mentors," in the CPCC bookstore prior to attending the first class."
BUS 7405. Problem Solving and Decision Making. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7406. Leadership: Inspiring Commitment. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0

BUS 7407. Problem Solving and Decision Making. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 7408. Planning and Critical Path Method. 0.0 Hours. Class-8.0.
Clinical-0.0. Lab-0.0. Work-0.0

BUS 7409. Delegating and Monitoring. 0.0 Hours. Class-8.0.
Clinical-0.0. Lab-0.0. Work-0.0

BUS 7410. Branding, Marketing for Not for Profit & Association Mgmt. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
This 10-hour course is designed for individuals from non-profits and associations. Participants will have a better understanding of: "Positioning & Branding": what it means for your organization, how to strategically plan for your organization around it’s purpose, and how to treat your organization like a business for maximum results.

BUS 7411. Process Management. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
This blended 21-hour course requires 12 hours in class and nine hours of individual online activity (out of class) and is designed to help participants develop a road map that will enable process owners and teams to identify, define, manage and improve their business processes. The class will address both current and new processes and participants will learn how to ensure they meet business performance objectives.

BUS 7412. Balancing the Mission and Financial Requirements of Your Organization. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide participants with a basic understanding of the importance of linking the mission of not-for-profit organizations with the financial budget in order to ensure the organization is mission-driven with appropriate financial disciplines. The course is designed to give participants practical tools for budget/financial management.

BUS 7413. Developing an Effective Not-For-Profit Business Plan. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide participants of not-for-profit organizations with the tools necessary to develop an effective business plan. Each participant will develop his/her own business plan in class.

BUS 7414. Partnering & Collaboration. 0.0 Hours. Class-24.0.
Clinical-0.0. Lab-0.0. Work-0.0
Partnering and collaboration is essential for survival in a not-for-profit organization. Participants will learn how to obtain funds and sponsorships, write grants, partner with other agencies, conduct a program evaluation and more.

BUS 7415. Call Center Team Manager. 0.0 Hours. Class-40.0.
Clinical-0.0. Lab-0.0. Work-0.0

BUS 7416. Tapping Your Board’s Potential. 0.0 Hours. Class-12.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to help participants understand board and staff roles and responsibilities, policy development, succession planning, how to make board and committee meetings work, new board orientation and more.

BUS 7420. Call Center Skills. 0.0 Hours. Class-35.0. Clinical-0.0.
Lab-0.0. Work-0.0
Students will learn the basics of Word, Excel, Access, PowerPoint and internet. There will be a brief introduction to typing.

BUS 7430. Lean Six Sigma Green Belt Certification. 0.0 Hours.
Class-77.0. Clinical-0.0. Lab-0.0. Work-0.0
After completing the course, students will obtain Green Belt Certification and have the requisite knowledge and skills to lead project teams and complete Lean Six Sigma projects. Green Belt training is an excellent way to enhance the effectiveness of both process owners and team members as they learn to apply the tools and methods used in the Lean Six Sigma methodology. Green Belts need to be able to implement all of the appropriate tools of Lean and Six Sigma and to lead independent local projects when necessary. They work with cross-functional teams to define and measure problems, analyze the root causes, implement improvements, and establish control at new levels. This course is comprised of two components, which create a blended learning process of online and classroom education. A Lean Six Sigma project with appropriate reporting is required to demonstrate the methodology acquired from the course.

BUS 7431. Six Sigma Green Belt Orientation Seminar. 0.0 Hours.
Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4 hour seminar is designed to give the participant an introduction to the Six Sigma program.

BUS 7432. Introduction to Six Sigma - Employee Awareness (white Belt). 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will be given an awareness and general understanding of the Six Sigma methodology to become Six Sigma conversational. Students will learn how to use Mini-tab software to summarize and interpret graphical display of data. This course is designed for those employees who are often referred to as "White Belts" in Six Sigma nomenclature. This course blends classroom instruction with required on-line assignments. Actual participant on-line hours may vary based on experience and knowledge.

BUS 7433. Six Sigma Basics - Team Member (Yellow Belt). 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will be taught a working knowledge of DMAIC methodology used in Six Sigma for process improvement. Participants will learn how to apply statistical, quality, and decision-making tools in a team environment as applied to Six Sigma projects. Students will learn how to use Mini-tab software to summarize data, interpret graphical display of data, and perform capability analysis of a process for both continuous and discrete data. This course is designed for those employees who are often referred to as "Yellow Belts" in Six Sigma nomenclature. This course blends classroom instruction with required on-line assignments. Actual participant on-line hours may vary based on experience and knowledge.

BUS 7434. Six Sigma Application - Team Leader (green Belt). 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon successful completion of this course, participants will be locally certified as Six Sigma Green Belts. Six Sigma Green Belts work directly with cross-functional project leaders, to carry out identified improvement projects. As such, Green Belts need to be able to implement all of the appropriate tools of Six Sigma and to lead independent local projects when necessary. They work with these cross-functional teams to define and measure problems, analyze the root causes, implement improvements, and establish control at new levels. This course blends classroom instruction with required on-line assignments. Actual participant on-line hours may vary based on experience and knowledge.
BUS 7435. Six Sigma Black Belt Certification Review. 0.0 Hours.
Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0
Become better prepared to provide an organization with leadership and knowledge expertise of a certified Six Sigma Black Belt. Course content is built around the American Society for Quality’s (ASQ) Body of Knowledge. Black Belts lead cross-functional project teams to carry out identified improvement projects, implement all appropriate tools of Six Sigma and provide statistical expertise for project teams. Black Belts work with, lead and mentor cross-functional teams to define and measure problems, analyze root causes, implement improvements and establish control at new levels. To achieve certification, students must successfully complete all online modules, pass an in-class certification exam, demonstrate proficiency of data analysis techniques using Mini-tab, and demonstrate proficiency in applying the Six Sigma skills by documentation of a completed Six Sigma project.

BUS 7436. Lean Six Sigma Executive Overview Course. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
After successful completion of this course, participants will have an understanding of the Lean Six Sigma methodology. Participants will understand how Lean Six Sigma projects are selected, measured and monitored to ensure successful completion within an organization.

BUS 7440. Mini-tab Introduction. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn how to navigate the various windows, toolbars, and customization features used in Mini-tab to increase their efficiency in performing basic exploratory data analysis. Learn how to import various types of data (Excel, text, etc.), export data and output between MINITAB and various software packages, and how to create, manipulate, and restructure data for specific tasks.

BUS 7445. Lean Six Sigma Yellow Belt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Lean Six Sigma professionals are very much in demand for continuous process improvements initiatives in all organizations. This course is a blend of ~6 hours of on-line training and 12 hours of classroom instructions spread out over 4 weeks. As Lean Six Sigma tools are learned they will be applied to students’ work examples and classroom simulations. Yellow Belt certification requirements include active classroom attendance/participation, passing all on-line modules’ post-tests, and a final exam.

BUS 7450. SPC 1: Process Monitoring Using Control Charts. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for people who need to have a knowledge and understanding of statistical process control (SPC). Students will learn how to interpret and use control charts to monitor a process for stability. Students will learn about the different types of data and which control chart is the appropriate type of chart to use for a specific situation. Students will be taught how to create and analyze control charts using a statistical software package, Mini-tab.

BUS 7460. Failure Mode and Effects Analysis and Control Plans. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
A basic overview of potential failure mode and effects analysis (FMEA) and the relationship of FMEA to Control Plans. The relationship of FMEA and Control Plans to QS-9000 Quality Management System and related AIAG requirements such as APQP and PPAP will be explained.

BUS 7500. The Rainmaker School of Professional Sales Development. 0.0 Hours. Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0
This 24-hour course is offered in partnership with national sales trainer, Landy Chase. In only 6 class sessions, participants can improve their personal selling skills for life. Topics include: selling value vs. selling price, competitive selling strategies, business development skills, dynamic presentation skills, managing meetings effectively, client-focused closing skills, and more! Materials included.

BUS 7511. Business to Business Sales 101. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Business to Business Sales 101 teaches participants to use a repeatable process based on best sales practices that takes them through the sales cycle from initial contact to closing the sale.

BUS 7512. Essential Skills for Sales Success. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Sales is a deliberate process, and Essential Skills for Sales Success leads participants through a comprehensive study of the essentials of sales success. From identifying unique buying behaviors, to prospecting, needs assessment, presenting solutions, and closing, participants learn the skills necessary to achieve success in today’s fast-paced selling environment.

BUS 7520. Client-Focused Closing Skills. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The closing process is composed of three separate, yet critical components: presenting pricing property, handling final objections and concerns, and asking professionally for the business. Most sales people think they know how to close properly. In reality, however, few really know what to do in response to statements such as “your price is too high” or “let us discuss it with our committee and we’ll get back with you.” And, truth be told, few sales people ever actually ask for the order - not because of an ability issue, but simply because they don’t know how to. Landy takes all of these issues and many others, head on, in this practical, cutting-edge seminar.

BUS 7530. How to Find, Hire and Train Outstanding Salespeople. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This 3-hour course is designed for sales managers and business owners. Participants can learn the secrets of finding, hiring, and training top sales performers from a nationally recognized expert in the field of sales force development, Landy Chase. Topics include: where to find outstanding salespeople, power questions to ask during an interview, how to avoid making bad hiring decisions, how to sell a top candidate on the opportunity at your company, and more! Materials included.

BUS 7575. Designed Sales Strategies for Six Sigma. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed Sales Strategies for Six Sigma (DSS-Six Sigma) is a sales strategy development training course. The course is designed to help managers design a common sales process that results in increased productivity in the sales organization. DSS-Six Sigma is designed to integrate the Six Sigma (DMAIC) components into a company’s selling and marketing effort.
BUS 7700. Zodiak, the Business of Manufacturing. 0.0 Hours. 
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0 
This 8-hour simulation developed by Paradigm Learning gets people to learn and use critical financial management and strategic decision-making skills in a creatively designed team exercise. Players run a fictional company on a game board and gain first-hand understanding of the big picture of how their organization makes money and answers to shareholders. They will see the factors - including their personal performance - that impact profitability. Importantly, they will have a chance to discuss applying the concepts in their own organizations. Zodiak is especially relevant in training non-financial people.

BUS 7970. Telephone Doctor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0 
Telephone Doctor Customer Service Training seeks on improving the way your organization communicates with your customers.

BUS 8100. Medication Training for Unlicensed Personnel. 0.0 Hours. 
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0 
This course is based on section 1 of the DHR approved manual, "Medication Training for Unlicensed Personnel." It incorporates basic training in the monitoring and clinical practices needed to safely administer medications.

BUS 8115. 7 Habits of Highly Effective People. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

BUS 8116. Project Management Fundamentals. 0.0 Hours. Class-88.0. Clinical-0.0. Lab-0.0. Work-0.0 
This project management course is designed to provide the skills and experience needed to successfully manage projects from initiation to completion. The certification program highlights skill areas of: targeting end objectives, project staffing, the 9 skills of successful project management, project time management, project quality management, project accounting, advanced project management tools. The course will be delivered via instructor-led and computer-based training and includes exercises that allow students to practice the application of knowledge and skills learned during the course. Additionally, the course will include an introduction to Microsoft Project, which will familiarize students with project management software.

BUS 8200. Project Countdown!. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0 
Project Countdown is an extremely realistic project management simulation in a "discovery" learning format. Each participant is an employee of company, called to work on a cross-functional project team, who will be analyzing information, making decisions and managing Countdown to a successful conclusion. The simulation is an intense "nine month" project, with information coming from voice mail, memos, e-mail, phone calls and from the project manager.

BUS 8210. Be Your Own Editor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0 
Have you ever asked yourself. “Did I get my point across in that e-mail? Did my report clearly communicate what we accomplished?” Good writing is a product of clear and logical thinking. The higher you go in an organization, the more your job requires the ability to write in an effective and professional manner. In order to gain credibility you must be able to write concisely yet allow your point of view to be communicated clearly. This workshop is designed to help you learn to craft well-written communication through self-editing techniques. Investing in your writing skills will have long-term payoff in your career.

BUS 8300. Essentials of Project Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0 
This class will meet the Project Management deliverables of: initiating, planning, executing, controlling, and closing. Essentials of roles and responsibilities, tracking progress, communicating, scope, budget, resources, and schedule. This session will also in include a project simulation and online work to enhance the elements of project management.

Cabinetmaking (CAB)

CAB 8300. Introduction to Furniture/Cabinet Making. 0.0 Hours. 
Class-224.0. Clinical-0.0. Lab-0.0. Work-0.0 
Experience this entry-level hands-on course in learning basic woodworking techniques. You'll learn about the properties and machining processes of wood that influence the design and construction of furniture, cabinetry and the artistic applications of wood. We'll also cover the practical use of hand tools, power tools and about design principles related to woodworking. Upon completion, students will apply their newly acquired skills and knowledge to produce a finished woodworking project. Prerequisites: Take CIX 7005 CIX 7000 or CIX 7020 with a minimum grade of S

Carpentry (CAR)

CAR 7000. Carpentry I, Part I. 0.0 Hours. 
Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0 
This course is an introduction to the carpentry trade for apprentices and others wanting to enter the trade. Topics covered include construction math, safety, blueprint reading, use of basic hand and power tools, and an introduction to framing methods.

CAR 7001. Carpentry I, Part II. 0.0 Hours. 
Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0 
This course is a general introduction to construction carpentry utilizing the wheels of learning curriculum. Topics covered include an orientation to the trade; nails, fasteners, and adhesives, woodbuilding materials; and the fabrication of floor, wall, and roof systems.

CAR 7021. Commercial Carpentry II. 0.0 Hours. 
Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0 
This the second course in the commercial carpentry apprenticeship program utilizing the wheels of learning curriculum.

CAR 7030. Drywall Installation Procedures. 0.0 Hours. 
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0 
This course introduces the methods, materials, tools, and techniques necessary to correctly install drywall covering.

CAR 7031. Drywall Finishing Procedures. 0.0 Hours. 
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0 
This course is the sequel to drywall installation procedures. It covers the materials, tools, methods and techniques necessary to finish the surfaces of installed drywall in preparation for painting.
Central Sterile Processing (CSP)
Chemistry (CHM)
Clinical Trials Research (CTR)

Code Enforcement (COD)
COD 7000. Code Qualification - Law and Administration. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Law and Administration course is an overview of North Carolina’s building regulation system and is designed for the education and training of building, electrical, mechanical, plumbing, and fire prevention code enforcement officials. Course participants will study the structure of the federal, state, and local governments, the history of the North Carolina State Building Code, the General Statutes relating to the Code and to code enforcement, and the enforcement responsibilities of local inspection departments. Upon completion, course participants will understand the scope of code enforcement and will be able to describe the powers and responsibilities of inspectors. In addition, with the successful completion of the Law and Administration course and others specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the State examination for inspector certification.
COD 7001. Code Qualification - Building Level I. 0.0 Hours.
Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for inspectors whose primary responsibility is inspecting residential and commercial buildings up to 20,000 square feet.
COD 7002. Code Qualification - Building Level II. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Building Level II course is designed for the education and training of the Building Level II code enforcement official who has the responsibility of inspecting all types of construction up to 60,000 square feet in size and is built upon information presented in the Building Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Building Code and the Accessibility Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Building Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Building Level II State examination for inspector certification.
COD 7003. Code Qualification - Building Level III. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Building Level III course is designed for the education and training of the Building Level III code enforcement official who has the responsibility of inspecting all types of construction of unlimited size and is built upon information presented in the Building Level I and Building Level II Standard Inspection courses.
COD 7004. Code Qualification - Electricity Level I. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the education and training of the Electrical Level I code enforcement official who has the responsibility of inspecting residential and small commercial electrical installations in construction up to 20,000 square feet. Upon completion, course participants will have a better understanding of Volume IV of the NC State Building Code and will be able to apply the Code in the inspection field. In addition, with successful completion of the Electrical Level I and the Law and Administration courses in conjunction with other educational and experience requirements specified by the NC Code Qualification Board, course participants will be eligible to take the Electrical Level I State examination for inspector certification.

CAR 7040. Qualified Framer. 0.0 Hours. Class-528.0. Clinical-0.0.
Lab-0.0. Work-0.0
Want to learn the skilled craft of carpentry? The Qualified Framer Class allows candidates to learn carpentry and framing skills in short term with this competency and worksite based program. Through cooperation with the local construction industry students are taught the construction fundamentals cluster (CIX 7005) as well as floor, wall, ceiling, & simple roof framing techniques on live work site labs (70%) and in the classroom (30%). Competency testing is required for area certification & will be both written and practical. Additional advanced carpentry certification may be attempted dependent on schedule and student. Upon completion, graduates can use our Career Center registry of licensed local contractors and employers who have listed jobs for trained and certified graduates.
CAR 7041. Residential Framing II. 0.0 Hours. Class-440.0. Clinical-0.0.
Lab-0.0. Work-0.0
CAR 7101. Home Construction Methods and Details. 0.0 Hours.
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
A course designed to assist the inexperienced builder to identify and evaluate information and procedures pertaining to home construction such as lot surveys, drainage, excavation and foundation construction, foundation wall, floor, wall and roof framing; appraising prefabricated walls and roof trusses, various types of duct work, heating and plumbing rough-in and electrical wiring; comparing and selecting exterior wallcoverings, plumbing-lighting-electrical fixtures and devices and hardware; and evaluating the application of the construction materials and techniques.
CAR 7130. Residential Contractor’s Exam Review. 0.0 Hours.
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a review of the laws, codes and procedures covered by the General Contractor’s License Examination for residential and light construction. This classification includes construction of all one-and two-family dwellings covered by the N.C. Residential Code.
CAR 7131. Commercial Contractor’s Exam Review. 0.0 Hours.
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a review of the laws, codes and procedures covered by the General Contractor’s License Examination for commercial construction. This classification includes the construction of all commercial, industrial, individual, multi-family and residential construction. The financial requirements for the Commercial/Building classification are the same for the Residential classification.
CAR 8131. Commercial Contractor’s Exam Review. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a review of the laws, codes and procedures covered by the General Contractor’s License Examination for commercial construction. This classification includes the construction of all commercial, industrial, individual, multi-family and residential construction. The financial requirements for the Commercial/Building classification are the same for the Residential classification.
COD 7005. Code Qualification- Electrical Level II. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
COD 3110 -30 Hours The Electrical Level II course is designed for the education and training of the Electrical Level II code enforcement official who has the responsibility of inspecting electrical installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Electrical Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Electrical Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Electrical Level II State examination for inspector certification.

COD 7006. Code Qualification - Electricity Level III Standard Inspection Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Electrical Level III course is designed for the education and training of the Electrical Level III code enforcement official who has the responsibility of inspecting electrical installations in all types of construction of unlimited size and is built upon information presented in the Electrical Level I and Electrical Level II Standard Inspection courses. Upon completion, course participants will have a better understanding of the Electrical Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Electrical Level III State examination for inspector certification.

COD 7007. Code Qualification - Mechanical Level I. 0.0 Hours.
Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
The Level I course is for the individual who has responsibility for inspecting residential and small commercial work. Individuals will become familiar with the code sections which are applicable to residential and small commercial inspection. The primary objective of this course is for the student to gain a working knowledge of the code as it applies to residential and small commercial inspection and how to readily apply the code to day-to-day problems. Another objective of this course is for students to gain admission to the qualifying examination for a Standard Certificate at Level I. Students must bring their own textbooks, which are Vol. III Mech. Code (with '92 revisions), and Vol. VII-1993 Residential Code-CABO. Books are available from N. C. Dept. of Insurance by calling (919) 733-3901.

COD 7008. Code Qualification - Mechanical Level II. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Mechanical Level II course is designed for the education and training of the Mechanical Level II code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Mechanical Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Mechanical Code and the Fuel Gas Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Mechanical Level II State examination for inspector certification.

COD 7009. Mechanical Level III Standard Inspection Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Mechanical Level III course is designed for the education and training of the Mechanical Level III code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction of unlimited size and is built upon information presented in the Mechanical Level I and Mechanical Level II Standard Inspection courses. Upon completion, course participants will have a better understanding of the Mechanical Code and the Fuel Gas Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Mechanical Level III State examination for inspector certification.

COD 7010. Code Qualification - Plumbing Level I. 0.0 Hours.
Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to review the 'new' Southern Building Code with the NC Amendments. The Plumbing Level I course is one of the NC Code Qualification Board's standard inspection courses. All credits for this course will go toward the Board's certification program. The students will learn how to read, comprehend, and apply the codes as necessary in their 'every day' line of work whether he/she is an inspector or a contractor. This course is needed for those who plan to become certified by the State of N.C.

COD 7011. Code Qualification - Plumbing Level II. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Plumbing Level II course is designed for the education and training of the Plumbing Level II code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Plumbing Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Plumbing Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Plumbing Level II State examination for inspector certification.

COD 7012. Plumbing Level III Standard Inspection Course. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Plumbing Level III course is designed for the education and training of the Plumbing Level III code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction of unlimited size and is built upon information presented in the Plumbing Level I and Plumbing Level II Standard Inspection courses. Upon completion, course participants will have a better understanding of the Plumbing Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Plumbing Level III State examination for inspector certification.
COD 7100. Code Qualification - Law and Administration. 0.0 Hours.
Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
The Law and Administration course is an overview of North Carolina's building regulation system and is designed for the education and training of building, electrical, mechanical, plumbing, and fire prevention code enforcement officials. Course participants will study the structure of the federal, state and local governments, the history of the North Carolina State Building Code, the General Statutes relating to the Code and to code enforcement, and the enforcement responsibilities of local inspection departments. Upon completion, course participants will understand the scope of code enforcement and will be able to describe and powers and responsibilities of inspectors. In addition, with the successful completion of the Law and Administration course and others specified by the North Carolina Code officials Qualification Board, course participants will be eligible to take the State examination for inspector certification. Text Book - Legal Aspects of Building Code Enforcement.

COD 7101. Code Qualification - Building Level I. 0.0 Hours.
Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0
The Building Level I course is designed for the education and training of the Building Level I code enforcement official who has the responsibility of inspecting residential and small commercial construction up to 20,000 square feet in size. Upon completion, course participants will have a better understanding of the Building Code, the Residential Code, and the Accessibility Code of the North Carolina State Building Code and will be able to apply the codes in the inspection field. In addition, with the successful completion of the Building Level I and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code officials Qualification Board, course participants will be eligible to take the Building Level I State examination for inspector certification.

COD 7102. Code Qualification - Building Level II. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The Building Level II course is designed for the education and training of the Building Level II code enforcement official who has the responsibility of inspecting all types of construction up to 60,000 square feet in size and is built upon information presented in the Building Level I Standard Inspection course. Prerequisites: Take COD 7101

COD 7103. Code Qualification - Building Level III. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The Building Level III course is designed for the education and training of the Building Level III code enforcement official who has the responsibility of inspecting all types of construction of unlimited size and is built upon information presented in the Building Level I and II Standard Inspection courses.

COD 7104. Code Qualification - Electrical Level I. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The Electrical Level I course is designed for the education and training of the Electrical Level I code enforcement official who has the responsibility of inspecting electrical installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Electrical Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Electrical Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level I and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Electrical Level I State examination for inspector certification.

COD 7105. Code Qualification - Electrical Level II. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Electrical Level II course is designed for the education and training of the Electrical Level II code enforcement official who has the responsibility of inspecting electrical installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Electrical Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Electrical Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Electrical Level II State examination for inspector certification.

COD 7106. Code Qualification-Electrical Level III. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The Electrical Level III course is designed for the education and training of the Electrical Level III code enforcement official who has the responsibility of inspecting electrical installations in all types of construction of unlimited size and is built upon information presented in the Electrical Level I and Electrical Level II Standard Inspection Courses. Upon completion, course participants will have a better understanding of the Electrical Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Electrical Level III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Electrical Level III State examination or inspector certification.

COD 7107. Code Qualification - Mechanical Level I. 0.0 Hours.
Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the education and training of the Mechanical Level I code enforcement official who has the responsibility of inspecting residential and small commercial mechanical installations in construction up to 20,000 square feet in size. Upon completion, course participants will have a better understanding of the Mechanical Code and the Fuel Gas Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level I and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Mechanical Level I State examination for inspector certification.

COD 7108. Code Qualification - Mechanical Level II. 0.0 Hours.
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
The Mechanical Level II course is designed for the education and training of the Mechanical Level II code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Mechanical Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Mechanical Code and the Fuel Gas Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Mechanical Level II State examination for inspector certification.
COD 7109. Code Qualification-Mechanical Level III. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the education and training of the Mechanical Level III Code enforcement official who has the responsibility of inspecting mechanical installations in all types of construction of unlimited size and is built upon information presented in the Mechanical I and II Standard Inspection courses. Upon completion, course participants will have a better understanding of the Mechanical Code and the Fuel Gas Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Mechanical III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Mechanical III State examination for inspector certification.

COD 7110. Code Qualification - Plumbing Level I. 0.0 Hours.
Class-38.0. Clinical-0.0. Lab-0.0. Work-0.0
The Plumbing Level I course is designed for the education and training of the Plumbing Level I code enforcement official who has the responsibility of inspecting residential and small commercial plumbing installations in construction up to 20,000 square feet in size. Upon completion, course participants will have a better understanding of the Plumbing Code of the North Carolina State Building Code and will be able to apply the code in the inspection field. In addition, with the successful completion of the Plumbing Level I and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Plumbing Level I State examination for inspector certification.

COD 7111. Code Qualification - Plumbing Level II. 0.0 Hours.
Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
The Plumbing Level II course is designed for the education and training of the Plumbing Level II code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction up to 60,000 square feet in size and is built upon information presented in the Plumbing Level I Standard Inspection course. Upon completion, course participants will have a better understanding of the Plumbing Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level II and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Plumbing Level II State examination for inspector certification.

COD 7112. Code Qualification - Plumbing Level III. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
The Plumbing Level III course is designed for the education and training of the Plumbing Level III code enforcement official who has the responsibility of inspecting plumbing installations in all types of construction of unlimited size and is built upon information presented in the Plumbing Level I and Plumbing Level II Standard Inspection courses. Upon completion, course participants will have a better understanding of the Plumbing Code of the North Carolina State Building Code and will be able to apply the Code in the inspection field. In addition, with the successful completion of the Plumbing Level III and the Law and Administration courses in conjunction with other education and experience requirements specified by the North Carolina Code Officials Qualification Board, course participants will be eligible to take the Plumbing Level III State examination for inspector certification.

COD 8000. North Carolina 2012 Residential Building Code Updates. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover significant changes in the NC 2012 Residential Building Code (except for chapter 11). Course will cover chapters 1-10 and appendix M. Class is open to code officials, designers, builders and contractors. This class is approved to meet the full 6 hours required NC Qualification Board Mandatory Continuing Education Credits for Code Officials. Handouts on changes will be given out at start of class.

COD 8020. Code Qualifications-Plumbing Continuing Education. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for education on training in the NC Plumbing Code and meets the requirements for the NC Code Qualifications Board for continuing education credit.

COD 8100. North Carolina Plumbing Code 2012 Update. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the changes and differences between the 2009 and 2012 North Carolina State Plumbing Code with special emphasis on particular code sections, State requirements, chapter by chapter, along with some documentation on backflows, wells, gray water. Will be using video stand, handouts, code books, group discussions, visual and verbal, code books during presentation. This course is open to code officials, builders, designers and contractors.

COD 8200. N.C. Mechanical Code 2012 Update. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the changes in the NC 2009 Mechanical Code and will cover the information in Chapters 1,2,3,4,5,6,7,8,9,10,11,12,13,14 and appendices.

COD 8300. Mechanical Fuel Gas Code 2012 Update. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all major code changes between the 2009 and the 2012 North Carolina State Fuel Gas Codes ( Chapters 1-8 and Appendices A-C) This course is open to code officials, builders, designers and contractors.

COD 8400. Regulations of Non-Residential Buildings And Structures. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will review regulations of Non-residential buildings and structures and the City of Charlotte Non-residential Building code. It will also review the NC Building Code chapters 1-10, 12 and 16. There will be a commercial site field inspection conducted.

Communication (COM)

Computed Tomography (CAT)

CAT 7000. Collision Avoidance Training for Young Drivers. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
Collision Avoidance Training program is an advanced defensive driving and vehicle control program designed for teenage drivers. Teens are at most risk for crashes in their first years of driving and inexperience behind the wheel is one of the factors related to that statistic. The course will provide the teen with four hours of classroom instruction and eight hours of on course time that conducts hands on drills in evasive maneuvers, threshold emergency braking, forward serpentine movement, cornering, backing and skid recovery. Students must hold a valid NC drivers license and will complete the course in their own vehicle that is insured according to the state minimum requirements. Students under 18 years of age must complete a concurrent enrollment form found at www.cpcc.edu/hsprograms.
Computer Applications (CAS)

CAS 7030. Open Your Own Bed and Breakfast. 0.0 Hours. Clinical-440.0. Lab-0.0. Work-0.0
This course provides an overview of bed and breakfast facilities. Emphasis is placed on lifestyle commitment, property evaluation, computer operations, increasing profitability, and customer service and facility management.

CAS 7100. The Art and Culture of Switzerland. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Because of its neutrality and democratic heritage, Switzerland has accumulated some of the finest public and private art collections in the world. This course will highlight the relatively unknown world class art that can be found throughout Switzerland's three distinct cultural regions.

Computer Science (CSC)

Construction (CST)

CST 7461. Industrial Motor Control I. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is intended to give the basic understanding of how electrical control systems operate, also to give a working knowledge of how relays, timers, contactors, and starters work. Explain the requirements of the national electric code as far as motors, generators, and control are concerned.

CST 7468. 24 Hr. Hazwoper Training. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

CST 7618. Cnc Graphics Programming - Machining Center. 0.0 Hours. Class-8.5. Clinical-0.0. Lab-0.0. Work-0.0
Upon completion of the course, students should be able to develop a complete job plan using smart-cam software, and develop tool path geometry and part geometry to produce accurate machine tool information.

Culinary (CUL)

CUL 7000. Buffet Centerpiece Presentations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, your passion for Dessert and Confectionary knowledge and skills will be applied to creating profitable and appetizing buffets with instructor, Chef Geoff Blount. You will learn to improve the taste of the food you serve and then how the layout of platter placement on the buffet table enhances food presentation. Space is limited to 8 students.

CUL 7010. Modern Ice Creams and Sorbets. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, your passion for Confectionary knowledge and skills will be applied to creating profitable and appetizing frozen creations with instructor, Chef Geoff Blount. You will learn to improve the taste and stability of the frozen confections you serve and then how the menu development enhances food sales. Space is limited to 8 students.

CUL 7020. Hot and Cold Dessert Presentation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Is your menu lacking in variety? In this course, you will focus on procedures for making common charcuterie items that can be prepared easily in most kitchens. Join chef, Dan Cheatham, for the preparation of sausages, as well as curing methods, including salt curing, brining and both cold and hot smoking.

CUL 7200. Charcuterie, Smokehouse and Condiment Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, your passion for Dessert and Confectionary knowledge and skills will be applied to creating profitable and appetizing desserts with instructor, Chef Geoff Blount. You will learn to improve the taste of the food you serve and then how the layout of plate placement enhances food presentation. Space is limited to 8 students.

CUL 7300. Chef's in the Kitchen. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for chef's currently working in a kitchen environment. Our certified culinary instructors will review cooking methods; assist with menu development for the client; equipment needed for menu development and plate presentation.

CUL 7400. Basics of Catering and Event Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Plan. Organize. Execute. With this course on the basics of catering and event management, you will have the critical tools you need to plan, establish and manage a profitable catering business.

Cosmetology (COS)

Criminal Justice (CJC)

CUL 7800. How To Work Effectively With The News Media. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This dynamic, interactive, and highly beneficial seminar is a must for any culinary professional or student who will, wants, or needs to work with the news media.
**Customized Ind Training Prog (CTP)**

**CTP 7000. Six Sigma Basics. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This one-day class gives an overall view of the Six Sigma DMAIC/L process improvement methodology. DMAIC/L is an acronym that stands for Define, Measure, Analyze, Improve, Control, and Leverage. The history, concepts, vocabulary, and many acronyms of Six Sigma are first presented in an easy to understand manner to allow students to “Talk the Talk” of the Six Sigma world. The DMAIC/L tools and methods are then taught in a hands-on manner to begin to “Walk the Talk” using students' examples for implementation of a Six Sigma project.

**CTP 7001. Diversity. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to help participants engage in continuous awareness and evaluation of one’s own values and experiences as they affect perceptions of others. Look beyond our obvious differences (culture, status, ethnicity, disability), to cultivate and enhance positive working relationships: .Seeking to understand others’ viewpoints, norms, and styles. .Demonstrating and understanding of differences and similarities. .Recognizing and addressing culturally biased behaviors to resolve conflict, solve problems and increase individual, team, and organizational performance.

**CTP 7002. Understanding Yourself and Others. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The DISC philosophy is used to determine how the learners view their personality traits and how their co-workers view their personality traits.

**CTP 7003. Totally Responsible People. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In the fast-paced and eye-opening workshop, learn the tools to stay positive, productive, and effective - no matter what the circumstances. Through interactive exercises, role plays, stories and lectures, explore what it means to become a Totally Responsible Person (TRP?) and how to take personal responsibility for our emotions, attitudes, and behaviors.

**CTP 7004. Competencies to Make YOU a Value-Added Employee. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In today’s competitive job market, employees must offer much more than just a pair of hands. In this session we provide a summary of critical competencies that manufacturing and distribution employees must demonstrate to add value to a company and thus increase their own value. We will focus on three key areas in interpersonal actions, business support, and self-management, providing interactive exercises to demonstrate these skills.

**CTP 7005. Managing Four Generations in a Workplace. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
For the first time in history there are 4 distinct generations working side by side in today’s workplace. This course is designed to give insight into the work styles of each generation, help understand the similarities and differences of the generations, and suggest ways that the generations can work better together.

**CTP 7006. MS Office Conversion from 2003 - 2010. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to identify and apply improvements from Microsoft 2003 to Microsoft 2010.

**CTP 7007. OSHA Recordkeeping and Reporting. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Employers attending the OSHA Recordkeeping and Reporting Training will be provided with the appropriate information and training regarding OSHA’s 29 CFR 1904 Standard for Recording and Reporting of Occupational Injuries and Illnesses. Employers will become familiar with who must comply with this standard and the criteria for recording occupational injuries and illnesses. Recordkeeping and reporting requirements for OSHA 1904 will be covered in this training. All OSHA Forms related to recordkeeping and reporting will be reviewed.
CTP 7008. Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operations trainers have the responsibility of ensuring that their trainees learn all the required steps and details of the tasks being trained so that they can meet the safety, quality and efficiency requirements of the job. Trainers must be able to communicate the information effectively and verify that the trainees have understood and internalized what they have learned and can demonstrate ability to perform the trained tasks.

CTP 7009. Hazardous Communications. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Employees attending the Hazard Communication & MSDS Training will be provided the appropriate information and training regarding hazardous chemicals in their workplace as noted in the OSHA Hazard Communication Standard (1910.120 and 1926.59). They will become familiar with Material Safety Data Sheets (MSDS) and how to obtain them in an emergency or a routine request. A Written Hazard Communication Program will be discussed along with a list within the company of all Hazardous Chemicals being used, and the new GHS (Globally Harmonized System of Classification and Labeling of Chemicals) will also be discussed.

CTP 7010. Find the root cause and fix it. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Too often people try to fix problems by simply addressing surface symptoms - "putting on a Band Aid", taking a widespread shotgun approach to eliminate every possible cause, or acting in crisis management mode and then forgetting to deal with chronic underlying issues. This course provides proven methods for manufacturing teams to systematically drive to root cause and to apply mistake-proofing and fail-safing tools to ensure a better and lasting solution to problems.

CTP 7011. Project Countdown. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Project Countdown is an extremely realistic project management simulation in a 'discovery' learning format. Each participant is an employee of a company, called to work on a cross-functional project team, who will be analyzing information, making decisions and managing Countdown to a successful conclusion. The simulation is an intense "nine month" project with information coming from voice mail, memos, email, phone calls and from the project manager.

CTP 7012. Lean and Green Shopfloor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a basic "think green" course that combines key Green principles for workplace elements (reduce, reuse, recycle) with introductory Lean waste reduction concepts and methods to reduce waste on the manufacturing/warehouse shopfloor.

CTP 7013. The 5S System. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The 5S System is a systematic approach using the five activities of Sort, Set, Shine, Standardize, and Sustain to establish an uncluttered, well-organized, and understandable workplace. It promotes safety, improved workflow, better product quality, reduced inventory waste, and above all a sense that you, the users, are in control of your work area.

CTP 7014. Introduction to 5S System. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The 5S System is the most common technique used in Lean Manufacturing environments. It allows people to take control of their work area by removing unneeded items (Sort), organizing the needed items (Set), practicing good housekeeping (Shine), setting standards for the first 3S’s (Standardize) and maintaining the improvements (Sustain).

CTP 7015. 20 hr. MasterCAM. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Computer Numerical Control graphics programming and concepts for turning and machining center applications. Emphasis is placed on the interaction of menus to develop a geometry and part geometry and on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center.

CTP 7016. Blueprint Reading. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basic principles of blueprint reading and sketching.

CTP 7017. GibbsCAM. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach you how to use GibbsCAM for your specific manufacturing applications, using your parts, 2D prints, and/or solid models.

CTP 7018. MS Access 2007 Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students who wish to learn the basic operations of the Microsoft? Access 2007 database application to perform their day-to-day responsibilities.

CTP 7019. MS Access 2007 Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course you will learn how to maintain data consistency, customize database components, and share data with other applications.

CTP 7020. MS Access 2007 Level 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course you will extend your knowledge into some of the more specialized and advanced capabilities of Access by structuring existing data, writing advanced queries, working with macros, enhancing the forms and reports and maintaining a database.

CTP 7021. MS Access 2007 Level 4. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is intended for participants who have a thorough understanding of the basic and advanced features of Access, and are interested in learning introductory level administrator skills. It is for the individual who will be working in a web-based environment and may need to adapt Access applications to the environment.

CTP 7022. Ladder Logic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course entertains the methods by which the user communicates information to the Programmable Logic Controllers (PLCs). Course material will review the relay-type instructions utilizing ladder diagram language, a symbolic set of instructions used to create the controller program. The instructor will use both the Allen-Bradley SLC-500 and the OMRON CPM1-20CDR-A Controllers for class demonstrations. Participants will learn about developing non-complex methods of changing machine capabilities for different product lines, testing possible conditions, troubleshooting errors, and ensuring desired output conditions.

CTP 7023. Essentials of Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This web-based training is the essence of being an effective leader who relies on establishing good interpersonal work relationships and having the ability to spark action in others. This foundational course, for most, teaches leaders how to get results through people. During this course, they learn a set of essential skills to meet both practical business needs and people's personal needs.
CTP 7024. Introduction to Ladder Logic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An examination of the methods by which the user communicates information to the Programmable Logic Controllers (PLCs) will be entertained. A review of relay-type instructions utilizing ladder diagram language. The Allen-Bradley SLC-500 Controller and the OMRON CPM1-20CDR-A Controller, both used with Conveyor Technologies CC Series Conveyors, will be the primary controllers discussed. Developing non-complex methods of changing machine capabilities for different product lines, testing possible conditions, troubleshooting errors, and ensuring desired output conditions will be explored.

CTP 7025. OJT Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for On the Job Trainers (OJT) who instruct, support, and coach floor workers to perform jobs in a safe, productive, and efficient manner. Participants will be shown training techniques based on Adult Learning Principles to maximize learning and productivity.

CTP 7026. Fundamentals for Frontline Leaders. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for new leaders and transitioning supervisors adjusting to new roles in management. Participants will be shown strategies for motivating a team, building trust, giving feedback and resolving conflict.

CTP 7027. Diversity and Inclusion - Celebrating Differences. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to increase the awareness and scope of diversity as a business issue. Leaders of all levels will be shown examples of prejudices, stereotypes and biases that can negatively impact the workplace. Participants will be shown tools and techniques for promoting an environment of trust, respect and inclusion.

CTP 7028. Advanced Product Quality Planning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Through group activities and involvement, class participants gain skills needed to implement the Advanced Product Quality Planning process from product concept through design, into production and beyond, including developing Control Plans and complying with PPAP requirements. On-site classes relate directly to the organization's products and build on existing systems and procedures. The course is based on AIAG Advanced Product Quality Planning (APQP) and Control Plan, Failure Mode and Effects Analysis (FMEA), Measurement System Analysis (MSA), and Statistical Process Control (SPC), and Production Part Approval Process (PPAP). The training provides a balanced approach to ensure both customer satisfaction and achievement of an organization's goals and objectives while satisfying product realization requirements.

CTP 7029. Refresher for Essentials of Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This refresher course focuses on developing leaders by establishing good interpersonal working relationships and building the leadership skills to spark action in others. These skills are essential in leaders either meeting and/or exceeding both business and personal needs.

CTP 7030. Internal Quality Auditing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

CTP 7031. Essentials of Effective Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants the essentials of effective leadership.

CTP 7032. Advanced Product Quality Planning with Control plans, FMEA, MSA, and PPAP. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is based on AIAG Advanced Product Quality Planning (APQP) and Control Plan, Failure Mode and Effects Analysis (FMEA), Measurement System Analysis (MSA), and Statistical Process Control (SPC), and Production Part Approval Process (PPAP). The training provides a balanced approach to ensure both customer satisfaction and achievement of an organization's goals and objectives while satisfying product realization requirements.

CTP 7033. Maintaining Positive Employee Relations Environment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to teach managers and supervisors how to recognize initial organization activity and how to lawfully and effectively respond to it. An important objective of the course is to make the supervisors/managers feel comfortable when addressing/discussing and helping them communicate the company's position.

CTP 7034. Getting Started as a New Leader. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course arms new leaders with the knowledge and skills they need to confront the challenges associated with getting their footing and getting results more quickly in their new leadership role. They learn how to focus their time and efforts on tasks that are most important to the organization's success. New leaders learn an approach that will accelerate their ability to achieve results through others.

CTP 7035. ASQ Certified Manager of Quality/ Organizational Excellence. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to help anyone planning to take the ASQ CMQ/OE examination and/or responsible for quality management system development and implementation become a more proficient professional.

CTP 7036. Contract Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares participants to take the Supply Management Exam (CSM) using a highly focused approach that teaches participants what they need to know regarding contracting and negotiations.

CTP 7037. Root Cause Analysis. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable participants to understand root cause analysis as a procedure for ascertaining and "analyzing" the causes of problems in an effort to determine what can be done to solve or prevent them. Consisting of lectures, practice, and role-playing, this course is designed to provide attendees with an in-depth understanding of how to analyze a system in order to identify the root causes of problems.

CTP 7038. Jet Enterprise User Dashboard. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This training focuses on Pivot Table functionality and creating dashboards in Excel from the cube environment. As many people as needed from the client organization can attend, and a recording of the generic training version will be provided for future reference.

CTP 7039. Jet Essentials Foundation Webinar. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Foundation training is effective in teaching the fundamentals of report writing and giving you the confidence to begin creating your own reports immediately. Learn how to use the basic capabilities of Jet Essentials in a convenient 4-hour web training session for an individual or group at your organization.
CTP 7040. Jet Data Manager Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 12-hour course hosted online for Database Administrators or IT professionals will enable someone to customize the cubes and warehouse, create new cubes, set-up data synchronization, securities and more.

CTP 7041. Essential Skills for the Successful Leader. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to equip participants with essential tools for coaching employees, give a better understanding of their role as a member of the leadership team, and provide input into a common understanding of the leaders’ responsibilities within the organization.

CTP 7042. Hazardous Materials Transportation Safety Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Employees attending the Hazardous Materials Transportation Training will be provided with the appropriate information and training regarding the handling and transportation of hazardous materials in their workplace as noted in CFR 49 Parts (100-199). Employees will become familiar with DOT Hazardous Materials Regulations (HMR) and their training requirements.

CTP 7043. Myers-Briggs Type Indicator. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Myers-Briggs Type Indicator? (MBTI?) assessment is the best-known and most trusted personality assessment tool available today. As many as 1.5 million assessments are administered annually to individuals, including to employees of most Fortune 500 companies.

CTP 7044. Communications for Today's Professional. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Do you ever wonder what it would be like to work for an organization that values good communication practices? Well, now you can stop wondering and become a disciple of good communication habits. Good communication does not just happen. We all need training to become a good communicator, which includes sending clear messages, dealing with the noise that dilutes the message and practicing good active listening skills that bring clarity.

CTP 7045. Pro-Mail Shopping Cart Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This Pro-Mail Shopping Cart Training Course is designed to teach the participants the complete process of creating and stylizing a Pro-Mail Shopping Cart View.

CTP 7046. Project Management Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an instructor-led course that is intended to provide an overview of project management and the related concepts. It will provide the participants with a general understanding of PM and serve as a foundation for the complete Project Management course. This course will provide fundamental knowledge of tools associated with Project Management including: Meeting Agendas, Gantt Charts, RACI Charts and Process Mapping.

CTP 7047. Microsoft Word XP/2002: Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second in a series of three Microsoft Word 2002 courses. By taking this course, you will expand upon the basic concepts that you learned in the Microsoft Word 2002: Level 1 course as well as be introduced to new intermediate concepts with an opportunity to apply them.

CTP 7048. Microsoft Word XP/2002: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Word processing is the use of computers to create, revise, and save documents for printing and future retrieval. Microsoft Word is a proven and powerful word processing application. This course is the first in a series of three Microsoft Word courses. It will provide you with the basic concepts required to produce common business documents as well as give you the opportunity to apply them.

CTP 7049. Microsoft Excel XP/2002: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course, Excel 2002 Level 1, is the first course in a series. This course will give you the skills to create, edit, format, and print basic worksheets and charts in Excel.

CTP 7050. Shopfloor Communication. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Effective communication is key to working together to achieve desired results in a team environment. Too often, oral and written communications are inadequate or misunderstood, resulting in errors and inefficiencies. All parties should use clear, concise, and correct communications in order to reach an understanding and/or agreement to eliminate errors, improve quality of work life, and drive faster progress toward goal achievement.

CTP 7051. Microsoft Excel XP/2002: Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second in a three-course series. This course will expand upon the skills you learned in the Excel 2002 Level 1 course and give you an opportunity to work with some more advanced features of Excel, including templates; sorting and filtering; importing and exporting; advanced formulas; analysis tools; and collaboration.

CTP 7052. Optimizing Team Performance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the Team Performance formula and explains how it can help teams optimize their performance. They will discover how the team environment - organizational support, organizational design, role clarity, learning support, and systems alignment - affects team performance. They rate their environment and use a Team Action Planner to develop a plan for optimizing their performance.

CTP 7053. Siemens Customized - Microsoft InfoPath 2010. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to introduce participants to the InfoPath User Interface.

CTP 7054. Crane Refresher. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Crane Refresher Course is designed to sharpen the skills of existing Crane Operators at SIEMENS Energy.

CTP 7055. Safety Manual. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Safety Manual course is an overview of SIEMENS Energy Safety Manual. The course includes SIEMENS position as it relates to Plant safety and covers safety topics included in the Company Safety Manual.

CTP 7056. Problem Solving Leadership for Quality Professionals. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Problem Solving Leadership challenges the conventional wisdom of current leadership development thought and practice stating that “The problem with leadership can be found in the definition of the leadership problem.” His challenge is not that the focusing upon leadership skills and follower receptivity is wrong, but rather it is incomplete. Problem Solving Leadership contends that a, or perhaps the, key element of the leadership problem is missing - the nature of the work to be accomplished.
**Corporate and Continuing Education Courses**

**CTP 7057. Introduction to Solid Modeling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is an introduction to basic three-dimensional solid modeling and design software.

**CTP 7058. Hydraulic System Maintenance and Setup. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to teach maintenance technicians how to maintain, setup and troubleshoot hydraulic powered and controlled systems.

**CTP 7059. 24-Hr. HazWOPER Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course provides the OSHA required annual refresher training for employees who have completed the initial 24 or 40-Hour HAZWOPER course. Workers attending this course will cover changes in related regulations, several class safety activities, a mock dress-out, health and safety procedures, and personnel protection during work operations at hazardous material sites.

**CTP 7060. 8-hr. HazWOPER Refresher. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course provides the OSHA required annual refresher training for employees who have completed the initial 24 or 40-Hour HAZWOPER course. Workers attending this course will cover changes in related regulations, several class safety activities, a mock dress-out, health and safety procedures, and personnel protection during work operations at hazardous material sites.

**CTP 7061. APICS Basics of Supply Chain Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is specifically designed to prepare the student towards certification in Production and Inventory Management.

**CTP 7100. WorkSkills: Steps to Your Success. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
WorkSkills: Steps to Your Success is a set of skills-based programs that provides fundamental skills and ideas for workplace success and an increased understanding of how the workplace operates. This course guides the learner through a cycle of learner-centric activities that results in sustained behavior change and provides valuable skill building opportunities.

**CTP 7105. Pivot Tables and Lookups. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
The purpose of this course is to explain and demonstrate how to create and use Pivot Tables and Lookups using Microsoft Excel.

**CTP 7106. Charting in MS Excel 2010. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will provide a comprehensive look at building charts in MS Excel 2010.

**CTP 7107. Mentoring Orientation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to provide the necessary tools to assist with mentoring an apprentice.

**CTP 7115. SAP ERP Integration of Business Process. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course explains how the fundamental integrated business processes interact within SAP ERP in the areas of Procurement, Manufacturing, Planning, Project Management, Sales, Customer Service, Enterprise Asset Management, Financials, Human Capital Management, and Analytics. This course prepares participants for the SAP Certified Associate - Business Process Integration certification (C_TERP1). This certification assessment is administered on the 10th day of the course and is proctored by the SAP Instructor.

**CTP 7125. ANSYS nCode DesignLife Introduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to teach the attendees the basics of fatigue analysis. Fatigue damage is the leading cause of structural failures. Catastrophic failures can occur without warning, and physical fatigue testing can be expensive and time consuming. ANSYS nCode DesignLife is CAE durability software data integrated into the ANSYS Workbench platform. It is used to virtually assess fatigue damage. It has identical functionality as the HBM nCode DesignLife industry leading CAE durability software and communicates easily with other ANSYS Mechanical software.

**CTP 7126. ANSYS Mechanical Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This training course teaches students how to effectively use ANSYS Mechanical to build a mechanical simulation model, analyze it and interpret the results. A technical education and background is recommended but an engineering degree is not required.

**CTP 7127. Material Resource Planning Process. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to standardize knowledge and cross-train techniques of controlling the MRP process with a concentration on MRP exception messages.

**CTP 7128. Material Resource Planning for Managers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to standardize and cross train management techniques of planning activities.

**CTP 7200. Problem Solving Results. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
Learners will be able to utilize a five step process to identify a problem, develop solutions and execute a solution.

**CTP 7201. Six Sigma Green Belt Certification. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**
After completing the course, students will obtain Green Belt Certification and have the requisite knowledge and skills to lead project teams and complete Six Sigma projects. Green Belt training is an excellent way to enhance the effectiveness of both process owners and team members as they learn to apply the tools and methods used in the Six Sigma methodology. Green Belts need to be able to implement all of the appropriate tools of Six Sigma and to lead independent local projects when necessary. They work with these cross-functional teams to define and measure problems, analyze the root causes, implement improvements, and establish control at new levels. This course is comprised of two intense components, which create a blended learning process of online and classroom education.
CTP 7202. Determining Business Requirements. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This class is for anyone participating with teams involved in developing business requirements for projects that may span multiple departments. Participants learn how to create business case and business requirements documents. These deliverables will identify what the project will and will not do (also known as in-scope and out of scope). This information is also needed by the business sponsors to decide whether or not the project should proceed to the next step, frequently known as the functional specifications. Upon completion, participants are awarded 14 CDUs recognized by International Institute of Business Analysis. The Endorsed Education Provider number for Total Systems Education is E112. Upon completion, participants involved with PMI and the PMP? certification program are awarded 14 PDUs. Total Systems Education’s Global R.E.P. number is 1270.

CTP 7203. Project Planning and Control. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course enables participants to learn and practice the tools and techniques needed in the project manager/leader roles. The best practices for negotiation, communication, risk management, change management and coordination between the project and management, clients/users, team members and support groups are covered in great detail. Participants learn to identify and execute appropriate planning, organizing and controlling steps for projects, while ensuring quality the first time. This course is appropriate for anyone managing a portion or entire project in an organization (hierarchy, matrix or global task force) with shared or part-time resources, all with shifting priorities. Upon successful completion, participants involved with PMI and the PMP? certification program are awarded 24 PDUs. Total System Education’s Global R.E.P. number is 1270.

CTP 7204. PMP/CAPM Exam Prep. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course prepares participants to take either the PMP? or CAPM? Certification exam using a highly focused approach that teaches participants what they need to know and do in order to pass the PMP or CAPM exam, rather than what they need to know and do to be an effective project manager. The CAPM Certification is designed for those individuals who have not yet attained the real world experience in project management to the level of a PMP, but do want to demonstrate their familiarity with project management processes. Upon completion, those involved with the PMP/CAPM certification program are awarded 21 PDUs towards the required hours needed to sit for the exams. Total Systems Education’s Global R.E.P. number is 1270.

CTP 7205. The Lean Office. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This class introduces basic concepts of Lean Thinking and extends this thinking from a manufacturing environment to the office environment. Using an office simulation and various examples, participants learn to identify wastes in office activities such as long customer response times, queued work, too many hand-offs, poor communication processes, etc. The class also emphasizes those activities which are unique to Knowledge Workers. Various tools to achieve lean practices in the office are introduced and strategies to promote sustainable implementation of the Lean Office are explored.

CTP 7207. Project Management Fundamentals. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This project management course is designed to provide the skills and experience needed to successfully manage projects from initiation to completion. The certification program highlights skill areas of: targeting end objectives, project staffing, the 9 skills of successful project management, project time management, project quality management, project accounting, advanced project management tools. The course will be delivered via instructor-led and computer-based training and includes exercises that allow students to practice the application of knowledge and skill learned during the course. Additionally, the course will include an introduction to Microsoft Project, which will familiarize students with project management software.

CTP 7208. Project Planning and Control. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This workshop enables participants to learn and practice the tools and techniques needed in the project manager/leader roles. The best practices for negotiation, communication, risk management, change management and coordination between the project and management, clients/users, team members and support groups are covered in great detail. Participants learn to identify and execute appropriate planning, organizing and controlling steps for projects, while ensuring quality the first time. This course is appropriate for anyone managing a portion or entire project in an organization (hierarchy, matrix or global task force) with shared or part-time resources, all with shifting priorities. Upon successful completion, participants involved with PMI and the PMP? certification program are awarded 24 PDUs. Total System Education’s Global R.E.P. number is 1270.

CTP 7209. TRIZ/Creative Problem Solving. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
TRIZ (Theory of Inventive Problem Solving) is a structured methodology for systematically solving problems. TRIZ is based on the discovery of proven, repeatable "Solution Directions" that have been used to solve problems across time and industries. Creative Problem Solving methods are designed to help participants think "outside the box" to generate creative ("Blue Sky") solutions that ultimately can be reduced to practice. Combining traditional Creative Problem Solving with TRIZ is a powerful approach to enhance the problem solving ability of every participant to generate robust, innovative solutions.

CTP 7210. Failure Mode Effects Analysis. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
Failure Mode Effects Analysis (FMEA) is a form of "proactive problem solving". In this introductory course, participants will learn how to construct a FMEA and how to use it as a tool to support many aspects of quality and productivity improvement activities. There are two major forms of the FMEA: Process FMEA and Design FMEA. Both types are discussed with most emphasis placed on construction and use of the Process FMEA.

CTP 7211. NX 8 Design Applications. 0.0 Hours. Class-440.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This is a two part course combining Intermediate NX Design and Assemblies and Introduction to NX for Experienced Users. Intermediate NX Design and Assemblies is intended to advance students further up the productivity curve. As a second tier course, this builds on the tools deployed as a result of attending the Essentials for NX Designers course. This method-based course focuses the student on productive modeling techniques that capture design intent in the context of the Master Model. Introduction to NX for Experienced Users is designed for those students who will be using NX on a daily basis. This course introduces assembly modeling in the context of a real-life scenario that includes parts modeled by the student as well as part models that have already been created.
Corporate and Continuing Education Courses

CTP 7212. Using Microsoft Project for Effective Project Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
After introducing or reinforcing the necessary Project Management concepts and tools needed to properly understand and use project software, this class assists participants in gaining ability and speed in the use of Microsoft Project. This is not a "button pushing" class. The workshop addresses those areas within a project, where the package helps the project manager plan, organize, and control a project, and its schedules, estimates, deadlines, costs and associated resources. Upon completion, participants involved with PMI? and the Project Management Institute's Project Management Professional - PMP program, are awarded seven PDUs or seven "Contact hours" for Part I and seven PDUs or seven "Contact hours" for Part II. Total Systems Education's R.E.P. code is 1270.

CTP 7220. Basic Maintenance TLC1005 - Mechanical Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course has been designed to teach mechanical maintenance for the TLC1005 Machine System. The course will give the participants the knowledge to complete electrical maintenance including cleaning, inspecting and changing different components of the TLC1005 machine and TruFlow laser.

CTP 7221. Resonator Maintenance and Troubleshooting - TruFlow Laser. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will give participants the knowledge to complete resonator maintenance and troubleshooting for the TruFlow laser, including: laser safety, sub-assemblies, beam generator and chillers.

CTP 7240. First Aid/CPR/AED/Bloodborne Pathogens. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the fundamental concepts and practices of First Aid and CPR, AED and Bloodborne Pathogens this class addresses the methods for delivering prompt and properly administered care. Topics covered include response to routine injuries typically found in the home or workplace, instruction and practice in Cardiopulmonary Resuscitation (CPR).

CTP 7241. First Aid/Cardiopulmonary Resuscitation/Automated External Defibrillator Training for the Layer Rescuer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
American Heart Association First Aid With CPR & AED course is designed to meet workplace OSHA requirements. The course teaches Basic First Aid, Adult/Child Cardiopulmonary Resuscitation (CPR), and use of an Automated External Defibrillator (AED) skills.

CTP 7242. Bloodborne Pathogen. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The American Heart Association Bloodborne Pathogens Course is designed to meet training requirements for OSHA Bloodborne Pathogens 1910.1030 General Standards. This course is designed for anyone with a reasonable chance of coming into contact with bloodborne pathogens.

CTP 7243. LOTO, Machine Guarding, Arc Flash and Electrical Safe Work Practices. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction with the control of hazardous energy as provided by OSHA 29 CFR 1910.331-335 and 29 CFR 1910.147 standards, assist participants understand the principles of machine guarding and the applicable OSHA, ANSI and ASME standards and utilize the OSHA Training Institute Outreach Training guidelines.

CTP 7244. Scissor Lift Safety Awareness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Reviewing important fundamentals for safe operation of scissor lifts, such as operating on level surfaces, operation within capacity limitations, minimum safe approach distances to live electrical transmission lines, weather considerations when operating outside, etc.

CTP 7245. Fire Extinguisher. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Like preparing a new product for sale or closing the book on a quarter, preventing a fire - or safely containing one - takes planning. Steps include easily accessible fire extinguishers, proper housekeeping and maintenance, broadly communicated, and practiced, evacuation plans, equipment shutdown, notification of authorities, and familiarity with the type of items that might burn and release toxins. Help your employees understand their role in a fire emergency.

CTP 7246. Confined Space Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach the participants how to evaluate the hazards and procedures associated with confined spaces.

CTP 7247. NFPA 70E Training the Qualified Worker. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction on NFPA 70E/Arc Flash Training for the qualified worker.

CTP 7250. NDE Visual Testing II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Visual Testing is the most applied method of Nondestructive Testing (NDT) and different from any other NDT method in that discontinuities are not just indicated but viewed directly. Contrast can be established by differences in reflectivity and/or color between the observed detail and its surroundings. The most important requirement is sufficient illumination on the surface to be investigated, the light level. Visual Testing can be done during production of goods or during service of machines or components. Visual techniques where the light reflected from the test surface travels directly into the eye of the observer are called Direct Visual Testing. Remote techniques use cameras usually driven by robots, manipulators or vehicles. Evaluation might not just be based on the type of discontinuity, but also on its size and location. Therefore measurements with calipers, micrometers and special weld gages may be necessary.

CTP 7260. Geometric Dimensioning and Tolerancing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce students to ASME Geometric Dimensioning and Tolerancing. ASME GD&T is one of the accepted standards for describing the geometric requirements for parts.

CTP 7261. Introduction to the Heidenhain TNC530. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the operation of a Heidenhain TNC530 computer control on a TOS horizontal boring mill.

CTP 7262. AutoCAD. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an introductory course that covers the basic AutoCAD commands necessary to create, edit and plot a drawing. Fundamental concepts of creating, editing, dimensioning, viewing, managing and plotting two-dimensional drawings will be covered.

CTP 7263. MS Access 2003: Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, participants will learn how to design and create a new Access database, to customize database components and to share Access data with other applications. Prior to taking this course, it is highly recommended that participants complete an MS Access 2003: Level 1 course.
CTP 7264. 'ms Office Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Microsoft Office is one of the most widely used software programs in the industry today. The course will teach participants how to navigate the software, create documents and prepare presentations.

CTP 7265. Metrology and Metrics Refresher. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach students proper measuring procedure using the following tools: Vernier Caliber, Depth Gage, Micrometer, Dial Indicator and Telescope Gage. Students will also learn about common measurement errors and ways to prevent them.

CTP 7266. MS Access 2003: Level 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the student who wishes to learn intermediate and advanced operations of the Access 2003 database program.

CTP 7267. MS Office 2010: Excel Intermediate. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course students will learn how to use Microsoft Excel to streamline and enhance their spreadsheets with templates, charts, graphs and formulas.

CTP 7268. MS Office 2010: Excel Basic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this class, students will learn how to create, save, edit, format and print spreadsheets. In addition, students will learn how to build simple formulas and insert them into spreadsheets.

CTP 7290. Expanding Customer Relationships. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide employees with skills to expand the customer’s business relationship by identifying and satisfying additional customer needs.

CTP 7291. Healing Customer Relationships. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to develop skills that will help service providers serve customers who are concerned, angry, or upset after a service breakdown.

CTP 7292. Guiding Customer Conversations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to provide service providers with skills for conducting conversations that effectively attend customers’ human and business needs.

CTP 7308. Reaching for Dazzling Customer Service. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to enhance the ability of service providers to make customers feel special and valued by creating experiences so surprisingly positive and memorable that customers will tell others about them. This course also trains managers to explore the value of stellar service, understand the employee’s role in achieving it, and apply key qualities to achieve excellent service delivery.

CTP 7309. Serving A World of Customers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help you learn and apply skills for providing helpful, sensitive, and respectful service that is tailored to customers’ unique needs.

CTP 7310. Adapting To Change. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learners will explore the phases of change, determine which they are currently experiencing through the TEST-Drive system and develop a plan to move forward.

CTP 7311. Delegating for Results. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Leaders will overcome their hesitation for delegation by learning skills for successfully matching people, responsibilities and authority.

CTP 7312. Personal Empowerment: Taking Initiative. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Personal Empowerment looks to change the mindset that empowerment is something that is given. It helps employees see that they can and should look for improvement opportunities.

CTP 7313. Addressing Emotions at Work. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to provide participants with strategies to address strong emotions?theirs and, when appropriate, those of the people they work with.

CTP 7314. Resolving Conflict within your Team. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to help participants resolve conflicts that hinder a team?s ability to produce results.

CTP 7315. Cardiopulmonary Resuscitation (CPR) Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This American Heart Association CPR course is designed to meet workplace OSHA requirements. Participants will learn Adult/Child Cardiopulmonary Resuscitation (CPR) skills.

CTP 7316. Effective Training Skills for New Trainers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Effective Training Skills for New Trainers offers a process that will allow trainers new to their role a guide to prepare and deliver effective and engaging workshops. This 12-16 hour course covers basic training skills in a way that is tailored to help new trainers improve their effectiveness.

CTP 7317. Activating Change: Individual Contributor Version. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to help participants improve their effectiveness.

CTP 7318. Teaming Up for Seamless Service. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to explore what it takes to deliver seamless service, and to develop skills for addressing service issues with fellow service providers.

CTP 7319. Hallmarks of Supervisory Success. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help participants develop strategies to effectively assume the supervisory role.

CTP 7320. Dazzling Your Customers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to enhance the ability of service providers to make customers feel special and valued, thereby creating experiences so surprisingly positive and memorable that customers will tell others about them and will want to sustain and build their relationships with the organization.

CTP 7321. Managing Your Priorities. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Rapid change, flatter structures, and cross-functional duties mean that individuals today must assume greater responsibility for managing their own tasks. To do that, employees need to know how to handle competing priorities, shift gears smoothly, and coordinate and negotiate responsibilities, schedules, and resources with others. The activities in this unit provide the awareness and skills participants need to make better decisions about their daily work.
The purpose of this course is to help participants prepare for performance-related discussions with employees that lead to increased productivity, collaboration, and achievement of critical goals.

CTP 7323. Guiding Customer Conversations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to provide you with skills for conducting conversations that effectively attend to customers’ human and business needs.

CTP 7324. Making Meetings Work. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course helps leaders save time and resources by leading meetings that support business needs. Leaders learn how to plan, facilitate, and follow-up on meetings (including virtual meetings) to ensure that there is a payoff for the time invested in meetings. Meetings are a great tool for achieving business results when the right people meet with a clear purpose and specific agenda.

CTP 7325. Presentation and Public Speaking. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In either a one- or two-day format, participants will secure the skill base to speak before groups of any size with poise and confidence they might never have thought possible. Audience comprehension soars because presenters learn to deliver content with techniques that both inspire and entertain.

CTP 7326. Communication and Listening. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this leadership development course, learners explore and practice effective listening techniques.

CTP 7327. Teambuilding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This seminar will use the principles of Pulling Together - 10 Rules For High Performance Teams to discuss, assess, and evaluate team dynamics and how to improve working relationships. Also, the DISC personality assessment will be used to explore behavioral preferences related to communication, interpersonal interactions, and leadership styles.

CTP 7380. 20 Hour SAFE Comprehensive Origination Essentials. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the originator pre-licensing education requirements of the SAFE Mortgage Licensing Act and prepare the students to take the federal and state licensing exam components. The 20-hour course should provide the loan originator with the ability to take a thorough, high-quality loan application and explain required disclosures to applicants. Students will learn essential terms, concepts, and math utilized in the mortgage industry. The course will also stress the importance of compliance with federal laws and ethical standards. The course includes three (3) hours of training on federal law, three (3) hours of ethical training (includes fraud, consumer protection, and fair lending issues), two (2) hours of training on non-traditional mortgage products, and twelve (12) hours of additional instruction on mortgage origination.

CTP 7381. 4 Hour SAFE North Carolina Mortgage Laws and Regulations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the mortgage loan originator pre-licensing education requirements of the SAFE Mortgage Licensing Act, and prepare the student to take the state component of the licensing exam. The 4-hour course should provide the mortgage loan originator (MLO) with a thorough understanding of the North Carolina-specific mortgage banking legislation. All mortgage professionals operating within the state of North Carolina need to be knowledgeable about specific state laws and regulations.

CTP 7382. SAFE Exam In-class Review. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This classroom course provides a review of the federal and state (NC) components of the SAFE Mortgage Loan Originator (MLO) Exam. Topics include a review of federal and state mortgage-related laws, general mortgage terms, mortgage loan origination procedures, ethics, compliance, and disciplinary action. This course is ideal for current licensees who need to pass the SAFE MLO Exam in 2010.

CTP 7383. Exam Prep: SAFE Online Practice Exams. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Practice, Practice, Practice! This online course offers practice exams to prepare students for the federal and NC state components of the SAFE Mortgage Loan Originator Exam.

CTP 7384. Introduction to Underwriting. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Enhance your current mortgage knowledge by learning to determine a borrower’s credit worthiness through risk-analysis. This course will improve your mortgage loan decision-making skills.

CTP 7385. 8-Hour NC SAFE Comprehensive CE: 2012 Updates for Compliance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the eight (8) hours of annual continuing education required by the SAFE Mortgage Licensing Act for licensed mortgage loan originators. Students will be presented with updates and reminders on the Equal Credit Opportunity Act (Regulation B), the Fair Credit Reporting Act, FHA and ARMS and NC specific laws.

CTP 7386. What It Takes to Succeed: The Basic Principles. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To succeed in today’s changing workplace, every employee needs a firm foundation for communicating with managers and co-workers, and a clear understanding of workplace norms and expected attitudes and behaviors. What It Takes to Succeed: The Basic Principles addresses the basics of success in the workplace: minimal expectations (including appropriate dress, regular attendance, and other aspects of a strong work ethic), as well as broad guidelines for day-to-day interactions with others.

CTP 7387. Defusing Emotional Charged Situations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Frequent changes, tight deadlines, unresolved issues, personality conflicts, and issues from home all can make the workplace a pressure-cooker where emotions get out of control affecting both performance and relationships. To succeed at work, employees need to understand what tends to set them off and possess skills for cooling down tense situations. This module helps participants explore the consequences of their individual “hot buttons” and develop appropriate coping strategies.
CTP 7388. Helping Your Team Work. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In almost every job, success depends on shared projects, effective group interaction, coordinated effort, and helping one another in a pinch. Where team skills and awareness are weak, an employee can impede the performance of the team and have a potentially disastrous secondary impact on the entire organization. This module takes a close look at key team behaviors—thinking big picture, extending a hand, appreciating others, and making one’s needs known. In the dynamic opening activity, participants recognize the value of strong teamwork and the consequences of a lack of teamwork.

CTP 7390. Punctuation and Grammar. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help students learn to avoid common errors in written office communications. They will achieve a better understanding of how appropriate grammar and punctuation reflect professionalism in written correspondence.

CTP 7391. Iverify OJT. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Customized assessments on security procedures, effective verbal/written communication skills, computer skills and software overview, evaluation, intervention and defusing techniques, and audit reports training provided by in-house trainers for new hires.

CTP 7392. Business Writing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this basic review is to foster an understanding of the most common errors that occur in business writing and to correct them. Because written language is an arrangement of words, understanding how those words work is essential to correct writing. This three-hour workshop captures the essence of the challenges facing business writers today.

CTP 7393. Elementary German II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of German I, focusing on the fundamental elements of the German language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written German and demonstrate further cultural awareness.

CTP 7394. German Level III. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will reinforce the grammar and vocabulary introduced in German Level I and Level II by means of review and practice. Emphasis is placed on the study of authentic and representative literary and cultural texts. New concepts and structures will be introduced and incorporated; as well as more time on cultural aspects in the various German-speaking countries.

CTP 7400. Phase I Pre-Employment Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Overview of the company including work shifts, uniform, and the career readiness certificate preference. Siemens Energy stands up for a skilled workforce.

CTP 7401. Phase II Pre-Employment Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class gives an overview of the gas turbine and facilitates two assessments: "Blue Print Reading "WorkKeys Applied Technology.

CTP 7402. Siemens New Employee Orientation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The class reviews, instructs, and demonstrates various operational procedures within the plant. Topics include: Overview of Charlotte Service Center Human Resources Organization and Handbook Medical / Wellness Benefits Payroll Process Siemens Charlotte Activities Association Diversity Council Siemens Caring Hands QCI and Quality Systems 3i Improvement Program Charnett Awareness Siemens Production System Human Performance Radiation Safety and Tool Crib Operations Counterfeit Parts.

CTP 7403. Teamwork. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course takes a close look at key team behaviors—thinking big picture, extending a hand, appreciating others, and making one’s needs known. In the dynamic opening activity, participants recognize the value of strong teamwork and the consequences of a lack of teamwork. Then, using four TEAM guidelines, participants assess video examples, evaluate their own team behaviors, apply the guidelines in practice situations, and plan for application after the class.

CTP 7404. Customer and Business Focus. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes activities that start from the planning of a new product to its production, marketing, and after-sales care. The activities are built around building and maintaining customer relations.

CTP 7405. Overhead Crane Awareness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The course includes a power point presentation and crane safety videos on the practicality of overhead crane safety.

CTP 7406. Power Plant Familiarization. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An overview of the operations of a power plant and how the Siemens product line fits within the system.

CTP 7407. Process Control and Documentation Compliance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course instructs and demonstrates the control process flows needed to document interdependency between interfaces, sequences and timing of controls and compensating controls.

CTP 7408. Blue Print Reading. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing coursework, student will be able to understand the basic principles of blueprint reading and sketching.

CTP 7409. Metrology. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an 8-hour course that introduces the concepts of metrology with instructor demonstration, and hands-on use of common precision measuring instruments.

CTP 7410. OSHA 10. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The 10-hour Construction Industry Outreach Training Program is intended to provide entry-level construction workers general awareness on recognizing and preventing hazards on a construction site. This course is designed for construction workers as an ideal orientation to those who are new to the industry and as a reminder for those who have been working in the industry to the hazards associated with their work.

CTP 7411. Forklift. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operators shall receive initial training in the following topics: Truck-related topics Workplace-related topics The requirements of the standard.
CTP 7412. Fall Protection. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach the first step in a proactive approach to fall protection involving identifying the potential fall hazards in the workplace.

CTP 7413. Overhead Crane. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This popular course covers a wide variety of crane configurations. Participants receive a working knowledge of all pertinent regulatory agency requirements.

CTP 7414. FD-3 Engine Manufacturing - Group 1: Compressor Diaphragms. 0.0 Hours. Class-480.0. Clinical-0.0. Lab-0.0. Work-0.0
Group 1: Compressor Diaphragms covers the assembly, welding, and machining of the compressor diaphragms for Rows 1-15 of new production FD-3 gas turbines and Rows 1-3 of two types of service diaphragms. This course is organized into Sections. Each Section is based on a factory routing. Routing operations are shown by number. Standard Operating Procedures, Welding Instruction Sheets, and other supporting documents that are called out in the routings will also be discussed.

CTP 7415. Phase III Pre-Employment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Re-test Siemens candidates on blue print reading and describe different Applied Technology pathways that the individual could go through to increase his/her skill sets in the manufacturing environment.

CTP 7416. Employment Law. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This training module has been designed specifically for managers/leaders to give them an understanding of various employment-related laws and their role to help avoid and/or reduce liability for the organization. Hiring, firing, performance appraisals, discipline, documentation, harassment, the Americans with Disabilities Act (ADA) and the Family and Medical Leave Act (FMLA) will be covered.

CTP 7417. Laser Safety Awareness Program. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide Siemens Energy’s technicians, engineers and laser area personnel a comprehensive laser safety-training program designed to enhance a working knowledge of laser hazards, bio-effects, and laser hazard control measures. All LIA training courses are based on the ANSI Z136.1 Safe Use of Lasers standard.

CTP 7418. NDE Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Non-destructive testing is a high demand career utilized in power generation, aerospace, construction, petrochemical, transportation, and various other industries. Non-destructive testing (NDT) is a group analysis technique used to determine the structural integrity of a component without damaging or impairing the serviceability of the part or system. Because NDT does not require the destruction or often the dis-assembly of a system, it is a highly-valuable technique that saves time and money in both product manufacture and in service inspection. Penetrant Training is a widely applied and low-cost inspection method used to locate surface-breaking defects in all non-porous materials (metals, plastics or ceramics), Penetrant may be applied to all non-ferrous materials, but for inspection of ferrous components magnetic-particle inspection is preferred for its subsurface detection capability. The student will learn Magnetic particle inspection process methods for the detection of surface and subsurface defects in ferrous materials. The courses will meet the training requirements of ASNT’s SNT-TC-1A-2001 and CP-189-2001 Editions.

CTP 7419. Outline Rigger. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour course provides instruction on the safe practices and procedures for overhead cranes, including how to determine weight load and methods used to calculate sling loading.

CTP 7420. Microsoft Outlook. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide Siemens Energy’s professional staff an overview of the various functions aside from the sending and receiving of an electronic mail message. Topics include managing the calendar, scheduling meetings, and working with tasks and notes.

CTP 7421. Microsoft Visio Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will learn the concepts for creating flowcharts and basic organizational diagrams. This includes creating shapes, printing drawings, creating custom stencils, and many time-saving shortcuts and techniques designed to increase user productivity.

CTP 7422. Gas Turbine Familiarization. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for new employees and those unfamiliar with the principles of the Gas Turbine. It is class room style, instructor-led and consists of the description of the major sections of a Gas Turbine, and the identification of major components within those sections, frame identification, and comparison of frames (differences/similarities).

CTP 7423. Siemens Energy Leadership Development Planning Seminar. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this planning seminar is to engage select managers and engineers in a facilitated discussion around professional development needs for various line and staff positions at Siemens Energy. Select members of Siemens management and engineering leadership teams will be identified by Pam Howze to participate in the seminar.

CTP 7424. Hazardous Material Transportation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Training for safe transportation of hazardous materials. The specific DOT (Department of Transportation) regulations fall under 49 CFR Parts 171-177 and deal with not only DOT regulations but also information and rules as presented by the Research and Special Programs Administration (RSPA). Four specific areas are addressed: general awareness; function-specific training; safety training; and driver training.

CTP 7425. OSHA Record Keeping. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for new employees and those unfamiliar with the record requirements, that are determined by OSHA. This includes, workplace injuries and illnesses, new requirements, Form 300 log, recordable guidelines and interpretations for BLS.

CTP 7426. Scaffold User Safety Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour class introduces the overview of the standards and OSHA training requirements and an introduction to different types of scaffolding.

CTP 7427. Laser Safety Officer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide SIEMENS Energy’s technicians, engineers and laser area personnel a comprehensive Laser Safety Officer training program designed to enhance a working knowledge of laser hazards, bio-effects, and laser hazard control measures. All LIA training courses are based on the ANSI Z136.1-2007 Safe Use of Lasers standard.
CTP 7428. Phase IV Pre-Employment for Siemens. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Phase IV Pre-Employment is by invitation only. Siemens Energy will select candidates whom they have identified as welders based on the point scale in the job interest form. All candidates who are invited to Phase IV will have the opportunity to learn more about the different AWS certifications and take the NCCER weld test. Candidates who score a 70% or higher will be invited to Phase V Pre-Employment.

CTP 7429. Phase V Pre-Employment for Siemens. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class covers testing certification under the American Welding Society, AWS. This is a 6G Tig weld test performed on pipe and lead facilitated/monitored by an AWS Certified Welding Inspector. Students are required to bring: Safety glasses/goggles to cover prescription glasses Welding helmet (min. 10 Shade filter) Welding cap for head and ear protection Leather boots at least above the ankles Welding jackets 100 percent cotton/leather sleeves type Welding gloves heavy double insulated for S.M.A.W./G.M.A.W. Wire brush for cleaning weld Chipping hammer for removal of slag/dross Pliers/ vise grips for handling hot metal Grinder 4.00" or 4.500" diameter for welds conditioning/cleaning No bare skin showing - shirts should be cotton, no synthetic materials they can melt from the heat. Suitable full length cotton jeans or cotton trousers with absolutely no holes or frayed edges.

CTP 7430. GT Engine Assembly Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this class is to prepare new hires in the area of Gas Turbine Engine Assembly functions and understand the "why" in the process.

CTP 7431. Laser Safety Officer Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide Siemens Energy’s technicians, engineers and laser area personnel a comprehensive Laser Safety Officer training program designed to enhance a working knowledge of laser hazards, bioeffects, and laser hazard control measures. All LIA training courses are based on the ANSI Z13.1-2007 Safe Use of Lasers standard.

CTP 7432. OSHA Class II Asbestos Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour class provides an overview of OSHA Class II Asbestos training in the area of rotor blocking removal process for Siemens Energy-Charlotte.

CTP 7433. 5 Why Problem-Solving Approach. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
When a problem occurs, the ability to address root cause, rather than just surface symptoms, is critical to identifying and implementing an effective solution. The 5 Why tool has been demonstrated to be effective as a standard process for enabling teams to drive to root cause. When all team members consistently apply standard best practices in their problem-solving challenges, the collective benefits are significant. The operations and culture move from skill-based and knowledge-based to rule-based. This reduces operational variability and increases delivery of business benefits.

CTP 7434. GT TP Engine Final and Sub-Assembly Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: To cooperate in establishing a training and know how transfer to CLT To assure quality at an agreed standard To coordinate resources efficiently and assure the most economic utilization of available capacities.

CTP 7435. Powered Industrial Truck Operator Training for Railcar Movers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8-hour class includes Classroom Training, review of the Operator Manual for the RCM, Pre-shift Inspection for the RCM used, and Operator Evaluation. The Training Class completes the Pre-shift Inspection as group to insure everyone knows how to complete this required task. A representative series of activities/tasks is outlined and each Operator is evaluated (Documentation includes a Training Roster, a completed written test for each student, a completed ?group? Pre-Shift Inspection, an individual Operator Evaluation, and a Certificate of Completion for students successfully completing the class.

CTP 7436. Railcar Mover Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class includes all of the material and activities described in the PITT2 CTP-7435. Students spend additional time reviewing presentation materials and the RCM Operator Manual in detail - including citations/references incorporated in the Classroom PowerPoint presentation speaker notes. Students are shown how to incorporate additional customer specific or material handling specific materials in the program to make the material "customer and task specific".

CTP 7437. German Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level conversational course and is geared toward those students who have not yet had any instruction in the target language. This is a life saver course for students planning a trip to the target country with an emphasis on real life situations. There will be an emphasis on grammatical construction.

CTP 7438. Behavioral Interviewing - "More than a Gut Geeling". 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour class unveils the process of hiring the wrong candidate by implementing effective skills when conducting hiring interviews, predicting a candidate’s future job performance, and hiring a person who will be truly successful in their jobs.

CTP 7439. Generator Familiarization. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce the principles of generator operation. It is recommended for personnel who require familiarization of Siemens Energy generators, exciters, and their auxiliary systems.

CTP 7440. Claims Avoidance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The overall purpose of the course is to teach personnel in Proposal Development, design, procurement, and contract administration (project managers) how to prevent potential claims from the outset of projects, how to recognize when they occur, and how to advance or defend against them should they arise. This course is designed for Project Managers, Field Service Project Managers, Marketing, and Operations personnel who have responsibility for implementing the Contract at Customer Sites. Those involved in Proposal Development should attend as well to understand how their work can help in preventing future claims.
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities. This 160-hour class prepares Siemens employees with skills to become OJT Trainers back at their local factory (Charlotte). Participants will study the assembly and disassembly of the rotor and its elements. This class is an on-the-job training with instruction from the qualified personnel in Berlin.

**CTP 7442. Gas Turbine Rotor Grind. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities. This 160-hour class prepares Siemens employees with skills to become OJT Trainers back at their local factory (Charlotte). Participants will gain knowledge in HV grinding of the rotor components. This class is an on-the-job training with instruction from the qualified personnel in Berlin.

**CTP 7443. Siemens Programming, Logic and Control. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for Operator/Programmers of CNC machines that utilize the SINUMERIK 840D / 810D / 840Di controls, with MMC-103 or PCU-50 Operator Interfaces, which provides a complete overview of the soft key menus of the SINUMERIK D-series CNC.

**CTP 7444. Gas Turbine Rotor Grind. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities. This 160-hour class prepares Siemens employees with skills to become OJT Trainers back at their local factory (Charlotte). Participants will gain knowledge in HV grinding of the rotor components. This class is an on-the-job training with instruction from the qualified personnel in Berlin.

**CTP 7444. Gas Turbine Rotor Grind. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities. This 160-hour class prepares Siemens employees with skills to become OJT Trainers back at their local factory (Charlotte). Participants will gain knowledge in HV grinding of the rotor components. This class is an on-the-job training with instruction from the qualified personnel in Berlin.

**CTP 7445. Gas Turbine Rotor Vertical Broaching. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities.

**CTP 7446. Gas Turbine Rotor Horizontal Broaching. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities.

**CTP 7447. Gas Turbine Rotor Broach. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities.

**CTP 7448. Visual Testing. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce the principles of visual testing certification and how to apply all components in order to pass Siemens Internal Certification as per Process Specification 84350W4.

**CTP 7449. Operator Certification Program and Accountability. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will give you an overview of the process of documenting and verifying manufacturing operations performed by the operators within the Charlotte Hub, as per I11.2-210.

**CTP 7450. IMS Overview. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course familiarizes the participants to the roles and responsibilities at Siemens GT Hamilton.

**CTP 7452. Gas Turbine Rotor Spindle Training - Part A. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities. This 800 hour class (divided into two 400-hour parts) prepares Siemens employees with skills to become OJT Trainers back at their local factory (Charlotte). Participants will study the assembly and disassembly of the rotor and its elements. This class is an on-the-job training with instruction from the qualified personnel in Berlin.

**CTP 7453. Gas Turbine Rotor Spindle Training - Part B. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The parties to this agreement have a desire to co-operate in training the CLT plant personnel to an agreed standard consistent with E F PR GT operating plant requirements according to the training schedule. The goals of this agreement are: *To cooperate in establishing a training and know how transfer to CLT *To assure quality at an agreed standard *To coordinate resources efficiently and assure the most economic utilization of available capacities.

**CTP 7454. Train the Trainer. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide the individuals selected as company trainers with the basic skills necessary to communicate with new workers and effectively transfer job skills that will enable the trainees to perform their required duties.
CTP 7455. Journeyman Rigging. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Journeyman Rigger Course is designed to increase the participants' level of knowledge of rigging gear inspection, proper rigging procedures, and load control using almost any vertical or horizontal rigging system.

CTP 7456. Master Rigging. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Master Rigger Course is a premier program of ITI that has been demanded by dozens of industries for nearly twenty-five years. It has served those who have sought for that next level of information and technical knowledge once they have completed journeyman type programs. It exposes participants to a variety of equipment and applications which include multiple-crane lifts, load turning, load drifting with chain hoists, jacking and rolling using mechanical, pneumatic and hydraulic systems, incline planes and managing the center-of-gravity in all three axes.

CTP 7457. Lean Practitioner Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Lean Manufacturing is currently one of the leading process improvement methodologies worldwide. In an increasingly competitive global market, its customer and process based focus on reducing non-value added activities.

CTP 7458. NDE Level III Basic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Basic Qualification is the prerequisite for the Level III Certification in a Method. This course provides an introduction into the principles of personnel certification in NDT, Materials, Processes and Flaws as well as application and limitations of the most prominent NDT Methods. The training course is intended for NDT seeking direct access to a level III method(s) exam and certification (without having taken level II exams). The applicable practical exams can immediately be taken after the course.

CTP 7459. Metric System for Machining. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour course introduces the concepts of metrics with instructor demonstrations and hands-on use of mathematical formulas and tables.

CTP 7460. MS Project 2003, Level 1 and 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will give the participants the knowledge of how to use MS Project effectively to assist with their project planning. It includes identifying the steps involved in planning a project, linking tasks effectively and working with time constraints, assigning resources and their work schedules to tasks, and resolving time and resource conflicts.

CTP 7461. Face to Face Communication. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The course is designed for the student who wants to improve their communication skills in one-to-one settings or small groups. They will study and practice effective interpersonal concepts and techniques.

CTP 7462. Siemens Steam Turbine Familiarization. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide the participants with a broad knowledge of Siemens Steam Turbines and their associated auxiliary systems. Prerequisites: Take DPT 7461 with a minimum grade of S

CTP 7463. FANUC CNC TRAINING. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the setup, operations and programming of the CNC Turning and Milling centers.

CTP 7464. Construction Awareness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Construction Awareness course provides attendees with basic awareness of hazards associated with a large scale construction project. Each topic included in this course is covered by the Occupational Safety and Health Administration’s Construction Safety Standards (CFR 1926).

CTP 7465. General Machining Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course explores the DISC quadrant behavior model used to assess behavioral preferences related to communication in the workplace. DISC stands for Dominance, Influence, Steadiness and Compliance.

CTP 7467. The Challenge of Change - Siemens Team Building Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course explores how change affects our organizations and us as individuals.

CTP 7468. Scaffold Inspector Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4 hour class will introduce participants to scaffold inspection, hazard identification and implementation of corrective measures in accordance with OSHA General Industry and Construction Standards.

CTP 7469. Spill Response. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course summarizes the basic skills and knowledge required for personnel working with hazardous materials and in hazardous waste sites.

CTP 7470. Soldering. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a comprehensive, hands-on solder training program based on J-STD-001 Rev. E. By prescribing practices and requirements for the manufacture of soldered electrical and electronic assemblies, the program describes materials, methods, and acceptance criteria for producing high quality soldered interconnections. The standard emphasizes process control and sets industry consensus requirements for a broad range of electronic connections.

CTP 7471. Siemens Product Lifecycle Management Software. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will give an entry-level user a high-level overview of NX modeling, assemblies and drafting topics using the NX software product suite.

CTP 7472. VERICUT Software Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 5 day class introduces new users to the VERICUT software product that is used to simulate CNC machining in order to detect errors, potential collisions or levels of inefficiency. VERICUT allows programmers to correct errors before the program is loaded onto the CNC machine and optimizes cutting speeds for more efficient training. Each day a new topic will be presented in order to gain a complete understanding of how the product works.

CTP 7473. Crane Operation and Rigging for Gas Turbines. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Crane Operations and Rigging for Gas Turbines course will assemble gas turbines. Assembly of a gas turbine relies on the workers knowledge of lifts, hoists and safety practices to transport parts in excess of 500 tons to assemble a final product.
CTP 7475. Compressor Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class describes the basic elements of Siemens compressors and the quality of that product. It teaches the fundamental purpose of the elements and their importance from a design point of view. It describes the manufacturing processes, both machining and assembly and the importance of process adherence during these operations.

CTP 7476. Working in a Collaborative Environment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
We will be speaking with managers whose primary and most recent experiences have been working in a union environment. These managers are transferring to a plant that is non-union. Our goal is to review and teach how to have a cohesive and productive department while maintaining our union free status.

CTP 7477. Level I and Level II Liquid Penetrant. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Penetrant Training is a widely applied and low-cost inspection method used to locate surface-breaking defects in all non-ferrous materials (metals, plastics or ceramics). Penetrant may be applied to all non-ferrous materials, but for inspection of ferrous components magnetic-particle inspection is preferred for its subsurface detection capability.

CTP 7478. ANSYS Mechanical Software Introduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS Mechanical is an intuitive mechanical analysis tool that allows geometry to be imported from a number of different CAD systems. It can be used to verify product performance and integrity from the concept phase through various product design and development phases. The use of ANSYS Mechanical accelerates product development by providing rapid feedback on multiple design scenarios, which reduces the need for multiple prototypes and product testing iterations. ANSYS Mechanical provides solutions for many types of analyses including structural, thermal, modal, linear buckling and shape optimization studies.

CTP 7479. ANSYS Mechanical Structural Nonlinearities. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS Mechanical Structural Nonlinearities training instructs engineering professionals how to perform structural nonlinear analyses using ANSYS Mechanical software. This course is intended for those who have attended the ANSYS Mechanical Introduction course and are already familiar with the procedures for performing a linear static analysis in ANSYS Mechanical. This course introduces the nonlinear solution procedure and covers how to setup a structural nonlinear analysis, define nonlinear solution options, and review nonlinear results. Advanced contact analysis procedures are discussed for simulating contact between two or more solid bodies.

CTP 7480. ANSYS Mechanical Heat Transfer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS Mechanical Heat Transfer is for engineering professionals wishing to use ANSYS Mechanical to analyze the thermal response of structures and mechanical components to heat transfer effects. This course focuses on performing steady-state, transient, linear and nonlinear thermal analyses.

CTP 7481. ANSYS Mechanical Dynamics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS Mechanical Dynamics is used to analyze the dynamic response of structures. This course focuses on performing modal, harmonic, flexible, dynamic and random vibration (PSD) analyses.

CTP 7482. ANSYS CFX Introduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces engineering professionals to ANSYS CFX which is a commercial Computational Fluid Dynamics (CFD) program, used to simulate fluid flow in a variety of applications. Participants will learn how to test systems in a virtual environment using four specific ANSYS products (DesignModeler, Meshing, CFD and CFX Solver).

CTP 7483. ANSYS Fluent Introduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course builds on using the ANSYS computational fluid dynamic products to create geometric models to simulate fluid flow in a variety of applications. Participants will expand upon previous instruction using DesignModeler and Meshing by adding the interactive solver setup, solution and post-processing capabilities of ANSYS FLUENT to pause a calculation, examine results with integrated post-processing, change any setting, and then continue the calculation within a single application.

CTP 7484. ANSYS DesignModeler. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS DesignModeler is a computer aided design (CAD) software program that enables engineering professionals to create and modify geometric models for analysis in ANSYS Mechanical or ANSYS Mechanical APDL. ANSYS DesignModeler allows users to import existing data including parameters from other CAD programs, which can then be adjusted and the design updated. This training will demonstrate the steps involved with creating or importing 2-D and 3-D geometric models in order to further analyze the computational fluid dynamic design of gas turbines.

CTP 7485. ANSYS DesignXplorer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ANSYS DesignXplorer is optimization software that provides instantaneous feedback on all proposed design modifications, decreasing design time and hastening the process. This course incorporates the use of graphic user interface (GUI) to enable designers to consider multiple designs so they can work more quickly and efficiently create new products within their existing product lines or optimize parts for new conditions.

CTP 7486. Gage R&R: Measurement System Analysis Using Minitab. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course focuses on methodologies used to ensure measurement systems for controlling production processes or used in support of process improvement efforts like Lean Manufacturing or Six Sigma. The main focus of the course is on classic Gage R&R studies (repeatability and reproducibility). This customized training program will deliver basic and applied measurement system analysis (MSA) techniques using Minitab statistical software to analyze MSA studies.

CTP 7487. Compressed Gas Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4 hour training course on Compressed Gas Safety, demonstrates how to properly handle compressed gas cylinders within the OSHA standards and under the best practices adopted by the Compressed Gas Association. Students will be shown how to properly recognize hazards associated with storage and use of compressed gas cylinders and removed damaged containers from service.

CTP 7488. High Voltage Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the Qualified Person who is expected to work on or near, live or de-energized electrical circuits. Instruction will address the OSHA electrical safety requirements of Power generation, transmission and distribution; and NFPA 70E Standard for Electrical Safety in the Workplace.
CTP 7489. Lockout/Tagout Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 2 hour course will introduce the OSHA 29 CFR 1910.331-335 and CFR 1910.147 standards to both qualified and unqualified persons that work with electrically powered machines and equipment using Lockout/Tagout procedures.

CTP 7490. NDE Visual Testing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce the principles of and instruct participants how to apply all components of NDE VT (non-destructive visual testing) in order to sit for and pass the NDE VT exam as per the guidelines set forth by ASNT CP-105.

CTP 7491. Turbine Tightening Methods. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The three day course covers all the theoretical content associated with Torque Tightening or Bolt Tensioning in practical terms.

CTP 7492. Armo Tool. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach the participants how to use the Siemens Vane Grinder and provide information on preventative maintenance.

CTP 7493. Laser Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Laser Safety is an entry level course that covers the basic operation of lasers including: the basic classes of lasers; hazards of laser use; controls that must be established for safety and lessons learned from case studies.

CTP 7494. Vertical Lathe and Mill G - Code Programming. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the fundamentals of G-Code programming for the vertical lathe and mill (FANUC C.N.C).

CTP 7495. TNC Basic Programming Training Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this class is to provide both new and experienced operators with the TNC Basic programming tools needed to operate Heidenhain Corporation contouring controls machines.

CTP 7496. Lift Truck Operator Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operators of Lift Trucks should possess the necessary knowledge and hands on skills needed to operate their assigned powered industrial truck (Lift Trucks) in a safe manner at a work site. This class addresses common accidents and demonstrates techniques for safe Lift Truck operation.

CTP 7497. Harbour Custom Vane Grinder (HCVG). 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to give tool shop equipment users a general knowledge of the Harbour Custom Vane Grinder (HCVG).

CTP 7498. 8D Problem Solving. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
8D Problem Solving is a well know 8-step problem solving methodology used in the automotive and other industries. The customized training program will teach participants how to define problems, implement containment processes, conduct root cause analyses, identify and implement solutions, and implement systems to prevent future occurrence of defects. A hands-on class simulation will be used to enhance the learning.

CTP 7499. Whitewater Challenge Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Our challenge course utilizes an action-oriented methodology that uses elements of risk taking, trusting, leadership, problem solving, and purposeful reflection to enable individuals to learn and grow from experiences.

CTP 7500. Introduction to Nuclear Power. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

CTP 7501. Natural and Man-Made Radiation Sources. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

CTP 7502. Nuclear Fuel Life Cycle. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

CTP 7503. PWR - An Introduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

469


CTP 7514. Tech Sec/FSAR/Current Event. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

CTP 7515. SAP TERP-10 Integration Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class outlines how SAP software is used to integrate all SAP modules and how they are interlinked with each other.

CTP 7516. Overhead Crane Assistant. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Siemens basic rigging course is designed to bring basic understanding of safe rigging practices to Crane Assisting Personnel. This class will not qualify attendees to operate an overhead crane either supervised or unsupervised.

CTP 7517. Progressive Grit Machine Tool Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces CNC operators to the Progressive Grit blasting machine. Students attending this class will learn how to set-up and run the machine, manually jog the robot, reboot the spindle, activate and edit the CNC program and run a parts program in PRIMIS.

CTP 7518. Overview of Balance Theory and Application. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Fundamentals of Balancing Seminar is designed to provide newly appointed operators with the practical skills necessary to improve balancing efficiency and streamline operations.

CTP 7519. Overview of Lapointe and Chain Broaches. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class gives a general overview of Broach tool theory, management and set-up of the Lapointe and Chain broaches.

CTP 7520. Designs and Forms for Colonial, 240 Detroit and Forst Broaches. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for Siemens engineers, supervisors and machinists who will work directly with the Colonial, 240 Detroit and Forst broaching machines. Participants will learn the theory, process, tooling design, quality management and machine tool operation of these three machines.

CTP 7521. Shop Floor Operations of Broaches Focus. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class introduces theory and function of various broaching machines to rotor department personnel. Students will learn the fundamental purpose and the elements of broaching including importance of process adherence. The same three topics will be covered at length for each machine: Machine Tool Management, Machine Tool Operation, and Off Loading/Health and Safety.

CTP 7522. Shop Floor Operations of Colonial, 240 Detroit and Forst Broaches. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class introduces theory and function of the Colonial, 240 Detroit and Forst broaching machines to rotor department personnel. Students will learn the function of, fundamental purpose and the elements of broaching including importance of process adherence. This 3 week class will introduce users to a new type of broach each week. The same three topics will be covered at length: Machine Tool Management, Machine Tool Operation, and Off Loading/Health and Safety.

CTP 7523. Phased Array Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the Ultrasonic Phased Array to UT (ultrasonic testing) Level II, III and NDE Management personnel. Students will receive an introduction to wave physics, calibrations and limitations of Ultrasonic Phased Arrays.

CTP 7524. OmniScan ECA Product Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the Olympus OmniScan Eddy Current Array (ECA) inspection system to NDE Examiners. In addition to learning proper set-up, calibration and operation of the ECA, comparison of conventional eddy current theory and ECA theory and techniques will be touched upon.

CTP 7525. Basic and Advanced Operator Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Basic and Advanced Operator Training has been designed to teach the user basic and advanced operations of the TLC1005 System. The course starts with the basics and continues to the advanced operator training. The course will give the user the knowledge to complete functions including laser safety, teach panel, alignment and adjustments of the laser system.

CTP 7526. 2D Programming Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
TLC 1005 Course 301: 2D Programming Class has been designed to teach operator of the basic programming of the TruLaser Cell System. This course will give the beginning operator the basic knowledge of the Teach Pendant including functions, operating and basic programming. It will give the participant the confidence to perform the first steps of programming the teach pendant by creating files and doing troubleshooting over the phone with help from our Technical Support Staff.

CTP 7527. 3D Teach-In Programming. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
3D Teach-In Programming Class has been designed to teach the operator the advanced programming of the teach pendant on the TLC 1005 System. This course will give the experienced operator the knowledge of the teach pendant. It will give the participant the confidence to perform programming off-line by creating files and troubleshooting over the phone with help from our Technical Support Staff.

CTP 7528. XRC Basic Programming. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an introduction to programming the Motoman XRC robot controller. No prior knowledge of robot programming or the XRC controller is required.

CTP 7529. XRC SVX-, SKX-, UP-Series Maintenance with Programming Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The XRC SVX-, SKX-, UP-series Maintenance Module will instruct operators on how to program, maintain and troubleshoot the XRC controller used with SVX-, SKX-, and UP-series industrial robots. Individuals responsible for diagnostics and repair and should attend this class.
CTP 7530. Robot Studio Offline Programming. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is intended for system design engineers and offline robot programmers using the simulation and offline programming software called RobotStudio. Users will be instructed on how to program a realistic simulation using real robot programs and configurations identical to those used on the shop floor.

CTP 7531. Siemens Diversity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to help participants engage in continuous awareness and evaluation of one's own values and experiences as they affect perceptions of others. Look beyond our obvious differences (culture, status, ethnicity, disability), to cultivate and enhance positive working relationships. .Seeking to understand others' viewpoints, norms, and styles. .Demonstrating and understanding of differences and similarities. Recognizing and addressing culturally biased behaviors to resolve conflict, solve problems and increase individual, team, and organizational performance.

CTP 7532. Siemens Tooling U. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
 Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 440 hours course consists of 46 modules that students can take as needed to acquire industry-recognized machining knowledge.

CTP 7534. Plate Scanner Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the ultrasonic aspects of non-destructive evaluation (NDE) software. Students will learn how to use InspectionWare, a specialized software for NDE, to obtain an ultrasonic image of a plate. Routine task set-up and advanced functions will be also be demonstrated.

CTP 7535. Thermal Spray Process Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the participants in thermal spray technology.

CTP 7536. Time Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants about time management.

CTP 7537. Aerial and Scissor Lift Safety Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Aerial and Scissor Lift training ensures that workers who operate aerial lifts are properly trained in the safe use of the equipment and maintain and operate elevating work platforms in accordance with the manufacturer's instructions as well as OSHA standards.

CTP 7538. Siemens Leadership and Professional Development Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Siemens Leadership Training programs provides a systemic approach to leadership development through the Achieve Global Model to build a motivated, loyal workforce capable of reaching new levels of productivity. It develops leaders from executives to individual contributors and teaches the critical skills needed to ensure success.

CTP 7539. Transporter Operator Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Transporter Operating Training course is designed for authorized operators of the Wheelift? 54 Ton Headless Transporter used at Siemens Energy, Inc.
CTP 7551. Resolving Conflict Within Your Team. 0.0 Hours.
Central Piedmont Community College
The purpose of this course is to help participants resolve conflicts that hinder a team's ability to produce results.

CTP 7552. Clarify Performance Expectations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help participants discuss performance expectations with their employees in a way that gains their commitment.

CTP 7553. Correcting Performance Problems. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help participants address recurring or serious performance problems and get an individual's performance back on track.

CTP 7554. Conducting Performance Reviews. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help participants conduct a performance review that will increase employee motivation, learning, productivity, and collaboration throughout the year.

CTP 7555. Establishing Performance Expectations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to ensure that establishing performance expectations is an interactive process between employer and employee. Moreover, employers should always take the time first to clarify their expectations and assumptions meeting with the employee.

CTP 7556. The Principles and Qualities of Genuine Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help participants attain results in their job by applying and developing the principles and qualities of genuine leadership.

CTP 7557. Macrodyne Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train operators and manufacturing engineers to operate the hydraulic press and maintain the equipment in a safe and reliable condition.

CTP 7558. Principles of Industrial Hydraulics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the participants in the Principles of Industrial Hydraulics. This class is designed to provide first level training for maintenance personnel who have not had formal training in industrial hydraulics.

CTP 7559. Principles & Qualities of Genuine Leadership, Manager's Version. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will assist managers how to apply the qualities of genuine leadership to attain results for their organizations.

CTP 7560. Reaching for Stellar Service. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train managers to explore the value of stellar service and understand the employee’s role in achieving it.

CTP 7561. Caring for Customers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to help employees develop skills for delivering friendly, attentive service that demonstrates interest in customers on a human level.

CTP 7562. Healing Customer Relationships. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to develop skills that will help employees serve customers who are concerned, angry, or upset after a service breakdown.

CTP 7563. Developing Others. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to help participants develop others, thereby helping them expand their capabilities so they will have the confidence to work independently and tackle new challenges.

CTP 7564. Recognizing Others for Stellar Service. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train managers to explore the value of recognizing and reinforcing the behaviors that support stellar service.

CTP 7565. Totally Responsible Person. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants an innovative and proven way to control negative emotions, beliefs or habits that impede cooperation and productivity.

CTP 7566. Improving Personal Productivity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop gives employees the skills they need to increase their productivity while decreasing stress levels.

CTP 7567. Resolving Conflict. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Differences of opinion can quickly escalate into an out-and-out battle. In the workplace, it’s the leader’s role to recognize the signs of conflict and quickly choose the appropriate level of involvement to help resolve the issue. This course teaches leaders how to recognize that a conflict is escalating and minimize the damage by using the most appropriate resolution tactic, regardless of which stage a conflict is in. Leaders also learn the true cost of conflict to an organization and techniques for handling even the most conflict-related discussions effectively.

CTP 7568. Principles of Industrial Hydraulics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This educational offering instructs the student to define geometric definitions, create an APT program to drive the defined geometry, and use logical statements and other advanced features.

CTP 7600. XFR Radiation Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an entry level course that covers the basic operation of the XFR Radiation device.

CTP 7601. Bolt Torque and Tension Tool Theory and Operation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants proper bolt and torque tightening procedures.

CTP 7602. Industrial Radiography/Radiation Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completion of this course participants will be able to demonstrate the basics of operating radiography devices under normal and hazardous conditions. Monitor controls on industrial radiography devices to prevent safety hazards.

CTP 7603. Excel 2003: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants how to use Microsoft Excel 2003 to create and edit basic worksheets and workbooks.
Corporate and Continuing Education Courses

CTP 7604. Excel 2003: Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants how to use Microsoft Excel 2003 to apply visual elements and advanced formulas to display data in various formats.

CTP 7605. Excel 2003: Level 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants how to use Microsoft Excel 2003 to automate some common Excel tasks, apply advanced analysis techniques to more complex data sets and to collaborate on worksheets with others.

CTP 7606. Outlook: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach participants the basics of Microsoft Outlook. Participants will learn how to send and respond to email, maintain calendars, schedule meetings and work with tasks and notes.

CTP 7607. Microsoft Office Access 2003: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Most organizations maintain and manage large amounts of information. One of the most efficient and powerful information management computer applications is the relational database. Information can be stored, linked, and managed using a single relational database application and its associated tools. In this course, you will be introduced to the concept of the relational database by using the Microsoft Office Access 2003 relational database application and its information management tools.

CTP 7608. Robotic Training - Maintenance Personnel. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is intended for robotic maintenance support personnel responsible for basic programming and maintaining Robot systems. The goal of the course is to train the student to safely use the teach pendant to create simple test programs, create and change data, and edit existing programs.

CTP 7609. Incident Command System Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Incident Command System provides a clear structure for the diverse activities necessary to successfully control a hazardous materials incident. The key element of any Incident Command model is that there is a single person in charge of the incident and that this person is responsible for the overall command of the incident and the establishment of the goals and objectives at the scene. This allows the efficient utilization of all resources when dealing with an emergency while performing the response in a controlled and well-organized manner. Finally, the risks to team members and other personnel is minimized when the Incident Command System is in place. The ICS was developed specifically for the fire service, but its principles can be applied to all emergencies. The ICS provides for coordinated response and a clear chain of command and safe operations.

CTP 7610. Modifications for Transporter Operator Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Modifications for Transporter Operating Training course will address modifications to the operation of the Wheelift 54 Ton Headless Transporter used as Siemens Energy, Inc.

CTP 7611. ARC Flash Electrical Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a beginner to intermediate level course that covers the basics of electrical safety. The course will teach participants the appropriate hazards and controls when working around electrical components.

CTP 7612. Design of Experiment Using Minitab. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a foundation for designing and analyzing experimental studies to minimize the use of resources while maximizing information. The theory, concepts and application of designed experiments are explored.

CTP 7613. Material Master Change for Production. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to train participants on the various types of changes to material master records in SAP, with a concentration in production and plant specific data.

CTP 7614. Material Master Changes for Purchasing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to train participants on the techniques of changing the Material Master in SAP, with a concentration in purchasing and plant specific data.

CTP 7615. Technical Writing for Engineers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help participants examine the purpose of writing, organization, sentence structure and word choice to improve their writing.

CTP 7616. CAM Turning and Customization. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to convey advanced CAM customization techniques, in addition to the functionality and application of the turning mode.

CTP 7617. Post Building Techniques. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach participants the techniques used for building custom, machine tool specific post processors using the Post Builder tool.

CTP 7618. Lean Principles. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Lean is a proven systematic approach to identify and eliminate wasteful activities that generate no value to the customer. The result is increased competitiveness, profitability and customer loyalty. This training provides participants with a practical understanding of specific tools in the Lean toolbox and how those tools can be applied in the workplace to eliminate waste.

CTP 7619. Siemens Penetrant Testing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Penetrant Testing (PT) is a widely applied and low-cost inspection method used to locate surface-breaking defects in non-porous materials (i.e., metals, plastics or ceramics). This course provides an introduction into the principles of penetrant materials, processes and flaws, as well as, application and limitations of the most prominent PT methods.

CTP 7620. Fluid Film Bearing Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to impart an understanding of the fluid mechanics, thermodynamics, heat transfer and solid mechanics and dynamics of fluid film bearings. The analytical modeling of those physical elements will be discussed followed by a thorough review of the design process.

CTP 7621. Keyboarding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn to type the easy way! No more hunting, pecking or two finger typing. Whether you are a beginner or a typing master, you can benefit from this class. Beginners learn the keys by guided animated hands while typing experts learn to become masters of speed typing. All classes are held in a computer lab.
CTP 7622. XRC Basic Programming. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This is an introductory course on programming the Motoman Industrial Robot.

CTP 7623. Siemens Lead Skills Training. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
The purpose of Lead Skills Training is to improve participant’s interpersonal skills by using DISC Leadership assessment to understand personal behavior tendencies. The class will also focus on the relevant sections of the Performance Management Process and the Siemens Corporation Compliance Guidelines.

CTP 7624. Safety Observer Training. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
The Safety Observer training class enhances attendees abilities to identify and correct unsafe behaviors and control physical hazards in the workplace. Participants will learn to utilize effective peer to peer feedback during the observation process as well as take necessary steps to identify and control hazards in the workplace. The course also offers insight into conducting effective “tool-box” meetings and understanding employees’ role in near miss reporting and incident investigation.

CTP 7625. ANSYS Maxwell Introduction. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is intended for people who have had little or no experience with ANSYS Maxwell. The course will teach students how to effectively use ANSYS Maxwell to setup, solve and post process results from electromagnetic and electromechanical models.

CTP 7626. Blueprint Reading/Machining. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course covers basic principles of blueprint reading. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, thread notation, auxiliary views; sections views; violations of true project and very basic introduction of GD&T.

CTP 7627. ISO 9001 - Lead Auditor. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
To provide potential lead auditors with the appropriate background, the course covers the basics of a Quality Management System, the process approach, and management system documentation. The course explains each requirement in ISO 9001:2008 and provides students with the tools to objectively evaluate the applicability of the requirements in their job. The course will present many of the theories, practices, and knowledge to prepare for the implementation and operation of a quality management system.

CTP 7628. Forklift Skills Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Employees will be evaluated on the particular forklift they operate within their place of employment (i.e. sit-down rider, stand-up model, reach, etc.). Employees will conduct a pre-trip inspection of the forklift and then maneuver the forklift through a series of cones. They will pick-up a load, travel with the load, place the load on an upper level, back away from the load, then go back up and retrieve the load. They will travel with the load to the original starting point, then the next employee will demonstrate those skills.

CTP 7700. Conventional Loan Processing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will give participants the necessary skills to become a mortgage loan processor. They will learn the basic terms and forms in processing mortgage loans, such as regulatory disclosures, credit reports, basic loan calculations and various verification forms.

CTP 7701. Mortgage Math. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Are you a mortgage professional having difficulties with traditional mortgage calculations? Master those pesky calculations, such as payments, income, LTV, qualifying ratios and loan amortization with this self-paced online course.

CTP 7702. Loss Mitigation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on expanding the participant’s current mortgage industry knowledge to include loss mitigation and loan modification.

CTP 7703. 4 Hour SAFE NC Mortgage Laws and Regulations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is approved by the Nationwide Mortgage Licensing System (NMLS) to meet the N.C. mortgage loan originator pre-licensing education requirement and prepare students to take the N.C. state licensing exam component.

CTP 7704. 8-Hour NC SAFE Comprehensive CE: 2012 Updates for Compliance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the eight (8) hours of annual continuing education required by the SAFE Mortgage Licensing Act for licensed mortgage loan originators. Students will be presented with updates and reminders on the Equal Credit Opportunity Act (Regulation B), the Fair Credit Reporting Act, FHA and ARMS and NC specific laws.

CTP 7705. Understanding Credit. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Credit scores and payment history are used by lenders to determine credit risk, which will ultimately affect a borrower’s payment terms (loan amount, interest rate, etc). Understand the various types of credit and what can positively or negatively affect a credit score.

CTP 7706. Title Insurance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Enhance your knowledge of title insurance. This course is designed for both mortgage and real estate professionals who review and analyze title insurance commitments and policies. This course is approved for four hours of CE elective credit with the NCREC.

CTP 7707. Introduction to FHA Lending. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Introduce yourself to the world of FHA lending. In this online course, you will learn how to maneuver the FHA website, how to search for information, understand FHA calculations and determine borrower eligibility.

CTP 7708. Fannie Mae Mortgage Math. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore Fannie Mae Guidelines as it relates to calculating borrower’s income to determine FHA Loan application acceptance. Concentrated time will be spent on required documentation for a specific “income type” (e.g. military, nurse, teacher, seasonal, clergy, and part-time).

CTP 7709. 8-Hour NC SAFE Comprehensive CE: 2013 MLO Rules and Reminders. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the eight (8) hours of annual continuing education requirements of the SAFE Mortgage Licensing Act for licensed mortgage loan originators. Students will be presented with updates and reminders on federal law, the Bank Secrecy Act/Anti Money Laundering, Ethics and Consumer Lending, Mortgage Assistance Relief Services (MARS), Non-traditional Mortgage Loan Products - VA "Special Underwriting" Loans and NC mortgage law.
Corporate and Continuing Education Courses

CTP 7800. Technical Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operations trainers have the responsibility of ensuring that their trainees learn all the required steps and details of the tasks being trained so that they can meet the safety, quality and efficiency requirements of the job. Trainers must be able to communicate the information effectively and verify that the trainees have understood and internalized what they have learned and can demonstrate ability to perform the trained tasks.

CTP 7801. Applied Electricity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course contains a basic understanding of DC and AC circuits, schematics, measurements, components, transformers, and power supplies. Students will receive working knowledge of measuring A/C and D/C voltages and currents along with learning about schematic symbols. Exploration of Ohm’s Law will be discussed to demonstrate the relationship between voltage, current and resistance. Basic troubleshooting will be taught as well.

CTP 7802. Shop Math Metrics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8 hour course explores the concepts of metrics and metrology in the machine shop.

CTP 7803. Extrusion 101. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This beginning course is for people new to the process of extrusion. The course introduces the student to the extrusion process, explaining step-by-step what occurs from hopper to extrudate. Safety issues are addressed and emphasized.

CTP 7804. Extrusion 102. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This intermediate course is designed for technicians, operators, process engineers, quality auditors, supervisors, and maintenance personnel. It is for those who have a familiarity with extrusion but want to expand their understanding of extrusion concepts and polymer behavior.

CTP 7805. Forklift Operator Certification: Warehouse and Sit-down Lifts. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8 hour class instructs warehouse personnel on the fundamentals and proper operation of various types of industrial forklifts. The class is broken into two sections: Sit-down Lifts and Warehouse Lifts. Upon completion of this class, students will become certified Forklift Operators.

CTP 7806. ABB Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This web-based training course will cover various topics including: various types of mechanical forces and how they act on objects; the operation, installation and maintenance of various clutches and brakes and industrial lubricants and the importance of proper lubrication procedure. It will also cover the uses of basic measuring devices in the shop to ensure part quality, electricity flow and the basic units used to measure electricity and the major materials used in manufacturing.

CTP 7807. First Aid/CPR/AED. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of the American Red Cross First Aid/CPR/AED program is to help participants recognize and respond appropriately to cardiac, breathing and first aid emergencies. This program teaches skills that participants need to know to give immediate care to a suddenly injured or ill person until more advanced medical personnel arrive and take over.

CTP 7808. Six Sigma Black Belt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Become better prepared to provide an organization with leadership and knowledge expertise of a certified Six Sigma Black Belt. Course content is built around the American Society for Quality’s (ASQ) Body of Knowledge. Black Belts lead cross-functional project teams to carry out identified improvements projects, implement all appropriate tools of Six Sigma and provide statistical expertise for project teams. Black Belts work with, lead and mentor cross-functional teams to define and measure problems, analyze root causes, implement improvements and establish control at new levels. To achieve certification, students must successfully complete all online modules, pass an in-class certification exam, demonstrate proficiency of data analysis techniques using mini-tab, and demonstrate proficiency in applying the Six Sigma skills by documentation of a completed Six Sigma project.

CTP 7809. ABB Tooling U - 5S Quality Overview and Trouble Shooting. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class provides an introduction to the SS quality system and describes techniques for implementing SS. It also provides an introduction to the process of determining problem causes and effects.

CTP 7810. ABB Tooling U - Mechanical, Electrical and Machining. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This web-based training course will cover various topics including: various types of mechanical forces and how they act on objects; the operation, installation and maintenance of various clutches and brakes and industrial lubricants and the importance of proper lubrication procedure. It will also cover the uses of basic measuring devices in the shop to ensure part quality, electricity flow and the basic units used to measure electricity and the major materials used in manufacturing.

CTP 7811. ABB Tooling U - Team Leadership and Effective Communication. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches the basics of effectively leading a team, including picking team members and resolving conflicts. It also teaches the key types of communication and common roadblocks to communication, as well as how to use effective communication as a tool to help promote teamwork.

CTP 7812. Kepner and Fourie Problem Solving and Decision Making. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Kepner and Fourie methodology for problem solving and decision making includes three approaches to thinking: standard approach, investigative approach, and Thinking on Your Feet approach. This workshop covers ten divergent and convergent thinking skills which form the basis of the five thinking dimensions (processes). PriorityWise helps to prioritize problems. Thinking Wise helps to determine the correct focus for complex/vague problems. CauseWise helps to find the true cause(s) of a deviation. SolutionWise helps to find the best solution for a given situation. RiskWise helps to avoid future problems.

CTP 7813. Theory of Constraints. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Every manufacturing process has one or more constraints that limit overall output. Optimizing other parts of the process will not increase capability unless the constraining process is improved. Qualitative and quantitative analysis and management of constraints can be implemented in stepwise fashion to improve the overall process and drive enterprise improvements. This course is designed to teach participants how to implement these techniques to be more efficient in the workplace.
CTP 7814. Quality of Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach participants the leadership skills they will need to be successful in developing people, implementing change and growing business.

CTP 7815. Manual Lathe General Operation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to safe manual lathe operations.

CTP 7816. Heat Treat Process. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for technicians that will be using the heat treating furnace system to alter the quality of metals.

CTP 7817. Crosshead Maintenance Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach operators how to safely disassemble and re-assemble crosshead for cleaning.

CTP 7818. Skaltek Payoff and Take up Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for operators and technicians that will be using the Skaltek Payoff and Take-Up machines wind cable on a spool.

CTP 7819. Easy Mover Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for employees that will be using easy movers to roll spools, reels and other round and wheeled objects on the shop floor.

CTP 7820. Taping and Head Spinner Setup. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for technicians that will be using tape on a spinner to connect cables.

CTP 7821. Operate Rewind. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for technicians that will be performing basic cable and wire rewind functions using various machines.

CTP 7822. Side Loader Operation and Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for operators and technicians that will be using a side loader to move materials down aisles and place them in overhead.

CTP 7823. Cable Design and Manufacturing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for employees that will be working with cable as well as manufacturing cables.

CTP 7824. Laminate Table Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for employees who will be laminating product.

CTP 7825. Cable End Prep Process. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for technicians that will be prepping the cable ends for electrical use and testing.

CTP 7826. Cold Welding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for employees who will be fusing copper wires.

CTP 7827. Roller Cages. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for employees using the roller cages to process and manufacture cables.

CTP 7828. Basic SAP Training for Floor Technicians. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach the basic SAP functions needed by floor techs to show production status.

CTP 7829. IEC Hot Set Test Training for Cables. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for employees that will be using the hot set test in order to test quality of cables coming off of the production line.

CTP 7860. MS Office 2010: Access Basic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, you will examine the basic database concepts, and create and modify databases and their various objects.

CTP 7861. MS Office 2010: Access Intermediate. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course students will work with Access tables, relationships, queries, forms, and reports and understand how to maintain data consistency, customize database components, and share Access data with other applications.

CTP 7862. MS PowerPoint 2010: How to Make a Business Presentation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for PowerPoint users who need to sharpen their knowledge of the program in order to make effective presentations.

CTP 7900. MS Office SharePoint 2007. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Microsoft Office SharePoint Server 2007 introduction combines the familiar Microsoft Office tools and the latest technology. It also extends the functionality of the applications and the web into a single environment to share information no matter where you are or how you access it. In this course, you will create and edit content in a team site and also manage your team site.

CTP 7910. Speaker’s Training Camp: Presentation Skills. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This interactive workshop will provide participants with tools and tips to give great presentations. Learn how to keep your audience engaged and committed to your content.

CTP 7911. Lean Manufacturing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Lean Manufacturing is currently one of the leading process improvement methodologies worldwide. In an increasingly competitive global market, its customer and process based focus on reducing non-value added activities allows companies to provide superior quality products and services in a timely manner with lower costs. The creative input of all employees is emphasized to improve workflow, productivity, efficiency, and workplace organization while reducing inventory and interruptions.

CTP 7940. Ergonomic Safety to prevent Injury. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed to instruct workers on the proper ways to protect themselves from injury by using ergonomics to prevent musculoskeletal injury.

CTP 7941. Accident Prevention and Investigation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to identify and prevent common causes of workplace accidents. It will deal with how to eliminate accidents as well as how to address accidents that have occurred.

Central Piedmont Community College
Corporates and Continuing Education Courses

CTP 7942. Hearing Conservation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Noise is a part of the everyday workplace landscape. Too much noise will cause permanent irreversible hearing loss, and is compensable by worker’s compensation. It is also a recordable injury on the OSHA 300. This course will explain the physics, anatomy and physiology of noise and the elements of a hearing conservation program.

CTP 7943. Fire Extinguisher Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach proper fire extinguisher use and safety.

CTP 7944. Toxic Substance Act Information. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Toxic Substance Control Act was passed in 1976 and has an effect on the workplace environment. This course will prepare employees to adhere to the guidelines of this law.

CTP 7945. Hand and Power Tool Safety Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an overview of common hand and power tools.

CTP 8000. Inspection Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 15 hour course consists of 15 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8001. Mechanical Systems Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 12 hour course consists of 12 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8002. CNC Controls: GE Fanuc Department Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 12 hour course consists of 12 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8003. CNC Controls: Mazak Department Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 18 hour course consists of 18 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8004. Coatings Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 5 hour course consists of 5 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8005. CNC Controls: Haas Department Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 12 hour course consists of 12 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8006. Manual Machining Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 10 hour course consists of 10 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8007. Composites Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 21 hour course consists of 21 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8008. Hydraulics and Pneumatics Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 16 hour course consists of 16 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8009. Materials Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 16 hour course consists of 16 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8010. Electrical Systems Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 15 hour course consists of 15 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8011. Abrasives Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 11 hour course consists of 11 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8012. Fasteners Tooling U Web-Based Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 10 hour course consists of 10 modules that participants can take as needed to acquire industry-recognized knowledge.
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 6 hour course consists of 6 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8014. PLCs Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 18 hour course consists of 18 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8015. Motor Controls Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 20 hour course consists of 20 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8016. Press Brake Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 6 hour course consists of 6 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8017. Metal Cutting Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 22 hour course consists of 22 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8018. Soldering Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 7 hour course consists of 7 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8019. Shop Essentials Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 14 hour course consists of 14 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8020. CNC Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 17 hour course consists of 17 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8021. Safety Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 18 hour course consists of 18 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8022. Quality Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 24 hour course consists of 24 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8023. Rigging Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 5 hour course consists of 5 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8024. Robotics Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 15 hour course consists of 15 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8025. Stamping Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 15 hour course consists of 15 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8026. Workholding Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 8 hour course consists of 8 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8027. Welding Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 20 hour course consists of 20 modules that participants can take as needed to acquire industry-recognized knowledge.

CTP 8028. Supervisor Essentials Tooling U Web-Based Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This 12 hour course consists of 12 modules that participants can take as needed to acquire industry-recognized knowledge.
Corporate and Continuing Education Courses

CTP 8029. Using Tooling U Content on Learn@Siemens. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tooling U (Tooling University) is an online training service providing workforce development training via distance education for engineers, machinists, press operators, assemblers, and industrial maintenance professionals. This course shows student how to use Tooling U to acquire industry-recognized knowledge.

CTP 8050. Reaching for Stellar Service. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To provide the kind of service that creates customer loyalty, organizations need people with strong interpersonal skills, a "can-do" attitude, awareness of the wider organizational context in which they work, and daily commitment to delivering exceptional service. In this module, participants define "stellar service" based on their own experience as customers and discuss the goal of stellar service - customer loyalty - and its benefits.

CTP 8051. Franklin Covey’s The 5 Choices. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In Franklin Covey’s Five Choices Essentials course, participants learn a process which, when followed, will dramatically increase their ability to achieve life’s most important outcomes. Backed by science and years of experience, this course will produce a measurable increase in productivity and an inner sense of fulfillment and accomplishment. This time and life management workshop will help you make the right choices as you plan your day, week and life. You will align your daily and weekly tasks with the most important goals. You will move from being buried alive to extraordinary productivity!

CTP 8052. Caring for Customers. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The four (4) hour module Caring for Customers is about acknowledging and responding to the person behind a service request. Customer loyalty is much more than timely, accurate, and thorough service; the customer must feel recognized and valued as an individual. This course walks the student through the important steps necessary to improve customer loyalty, increase customer satisfaction, and insure and promote the customer’s personalized service.

CTP 8100. Basic Pneumatics. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers a basic knowledge of pneumatics including pneumatic power, circuit connections and basic cylinder circuits.

CTP 8200. ERP Team Training - NAV Financials. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train participants in the operation of the software and its customizations so that each team member becomes proficient in their individual functional areas.

CTP 8201. ERP Training NAV Distribution. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train participants in the operation of the software and its customizations. Each team member will become proficient in their individual functional area to perform business scenario based testing of the applications.

CTP 8202. ERP END USER Training - NAV Financials. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare each member of the ERP team to become proficient in their individual functional areas to perform business scenario based testing.

CTP 8203. ERP End User Training - NAV Distrubution. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to train participants in the operation of the software and its customizations so that each team member becomes proficient in their individual functional areas.

CTP 8301. Understanding and Preventing Workplace Harassment. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to heighten the awareness of both employees and managers to the issues that workplace harassment causes. Employees will gain an understanding of what to do and how to handle harassing behavior while managers learn to respond appropriately to complaints of harassment. This is a highly interactive instructor led session that includes role play and videos.

CTP 8302. TS16949. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This two-day course is designed to provide the participant with an in-depth knowledge of process based audit plans.

CTP 8310. Understanding Equal Employment Guidelines & Employee Relations. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Title VII of the Civil Rights Act of 1964, the Americans With Disabilities Act, the Age Discrimination in Employment Act, and the Genetic Information Nondiscrimination Act are federal laws which prohibit employers, including employment agencies and unions, with at least fifteen employees (20 employees for ADEA), from discriminating in employment based on race, color, religion, sex (including gender identity, change of sex and/or transgender status), national origin, disability, age, or genetic information. They also prohibit retaliation against persons who complain of discrimination or participate in an Equal Employment Opportunity (EEO) investigation. This course will also introduce leaders to methods of effectively relating to a 21st century workforce. Participants will explore the outside forces influencing today’s worker and will discover tools to effectively relate to them with an ultimate goal of achieving high levels of productivity. Also, they will learn about the pitfalls of poor employee relations, including increased absenteeism, turnover, and regulatory agency intervention.

CTP 8320. Kaizen Event/Problem Solving. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course participants will be led through an actual Kaizen event and will learn how to respond to future events. Kaizen is a potent tool to not only fix specific problems or workflow issues but to tap into the creative resources of the workforce. Kaizen events can result in rapid workplace changes using cross-functional volunteers from various groups. Properly done, Kaizen allows workers to take control of their work areas for continual improvement with a sense of ownership, responsibility and pride.

CTP 8321. Good Manufacturing Practices. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide a set of rules and guidelines for supervision to use as a reference in day to day manufacturing operations. It shall serve as a monitoring tool for quality assurance to determine if adequate control is being maintained during operations. This program is an overview for the hourly worker as to the sanitation standards that are required.

CTP 8322. Mueller Narrow Fabric Loom Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for technicians that will be operating, maintaining and calibrating the Mueller NF Loom.
CTP 8323. Poka Yoke Process Improvement. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introductory course in the LEAN manufacturing family of topics instructing in the use of mistake-proofing and fail-safety (Poka-Yoke).

CTP 8600. Gleason Metrology Software. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Our application know-how gives you custom-tailored results and solutions to complex production tasks for Gleason machines. The expertise of the workforce constitutes the core competency of Gleason.

CTP 8601. OSHA 30-hr General Industry Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 30-hour General Industry Outreach Training Program is intended to provide a variety of training to workers with some safety responsibilities governed under the Standards of the Occupational Health and Safety Administration (OSHA). Training should emphasize hazard identification, avoidance, control and prevention, which is not OSHA standards. Students attending the entire course will receive their "OSHA 30-hour card" for worker safety training in General Industry.

CTP 8602. CPR and AED. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of the American Red Cross CPR/AED program is to help participants recognize and respond appropriately to cardiac and breathing during an emergency. This program teaches skills that participants need to know to give immediate care to a suddenly ill person until more advanced medical personnel arrive and take over.

CTP 8603. Coordinate Measurement Machine. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants are introduced to the STUDIO inspection software via the software’s Graphical Menu Interface. This class is geared for the beginner to intermediate CMM operator and programmer. The participants will learn the fundamentals of using STUDIO to inspect and create part programs with and without using the integrated CAD interface. STUDIO generates DMIS (Dimensional Measuring Interface Standard) code. The participant will learn how to qualify a probe, align a part, measure features and generate reports.

CTP 8710. Employee Relations Manager’s Version. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to introduce leaders to methods of effectively relating to a 21st century workforce. Participants will explore the outside forces influencing today’s worker and will discover tools to effectively relate to them with an ultimate goal of achieving high levels of productivity. Also, they will learn about the pitfalls of poor employee relations, including increased absenteeism, turnover, and regulatory agency intervention.

CTP 8711. Sexual Harassment and Equal Employment Opportunity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to heighten the awareness of both employees and managers to the issues that sexual harassment in the workplace causes. Employees will gain an understanding of what to do and how to handle harassing behavior while managers learn to respond appropriately to complaints of harassment. This course will also introduce leaders to Equal Employment Opportunity laws. Title VII of the Civil Rights Act of 1964, the Americans With Disabilities Act, the Age Discrimination in Employment Act, and the Genetic Information Nondiscrimination Act are federal laws which prohibit employers, including employment agencies and unions, with at least fifteen employees (20 employees for ADEA), from discriminating in employment based on race, color, religion, sex (including gender identity, change of sex and/or transgender status), national origin, disability, age, or genetic information. They also prohibit retaliation against persons who complain of discrimination or participate in an Equal Employment Opportunity (EEO) investigation.

CTP 8712. Interviewing Do’s & Don’ts. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Traditional “gut feeling” interviewing is often a poor predictor of good hires. “Gut feeling” interviewers tend to choose candidates they like, those that are like themselves, or candidates who interview well, rather than the best candidate for the job. Using these types of selection techniques present many problems for organizations—most of which is that most new hires selected in this manner likely will not meet your performance expectations. This makes traditional “gut feeling” interviewing a high risk and potentially costly. Interviewing potential new employees and those who may be promoted or transferred is one of the most important tasks a leader can undertake. Yet too many managers are ill prepared for the critical interaction that will determine who fill critical roles within their organizations. The outcomes can be disastrous and costly!

CTP 8720. MS Office 2010: Outlook Intermediate/ Advanced Hybrid. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to show novice Outlook users how to use this tool in order to manage their e-mail, schedules and tasks more effectively.

CTP 8721. MS Office 2010: Outlook Advanced 4 Hour. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is intended to instruct intermediate Outlook users how to personalize email, organize Outlook items, manage Outlook data files, share and link contacts, save and archive mails, create forms, and work offline and remotely while remaining productive. This course is for persons with an intermediate understanding of Outlook.

CTP 8730. MS Visio 2013. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will be introduced to basic and intermediate functions of Microsoft Visio 2013. Participants will learn concepts for creating flowcharts, basic organizational diagrams, and many time-saving shortcuts and techniques designed to increase user productivity as they relate to specific disciplines and departments such as Human Resources, Information Technology, Office Management, and Engineering.

CTP 8860. Excel Conversion from 2003 to 2007 Basic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Excel 2003 and Microsoft Excel 2007.

CTP 8861. Excel Conversion from 2003 to 2007 Intermediate. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Excel 2003 and Microsoft Excel 2007.
CTP 8862. Excel Conversion from 2003 to 2007 Advance. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Excel 2003 and Microsoft Excel 2007.

CTP 8865. Outlook Conversion 2003 to 2007 Basic. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Outlook 2003 and Microsoft Outlook 2007.

CTP 8866. Outlook Conversion 2003 to 2007 Intermediate. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Outlook 2003 and Microsoft Outlook 2007.

CTP 8867. Outlook Conversion 2003 to 2007 Advance. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Outlook 2003 and Microsoft Outlook 2007.

CTP 8870. MS Word 2003-2007 Conversion Basic. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The purpose of this course is to explain and demonstrate the modifications made between Microsoft Word 2003 and Microsoft Word 2007 as well as give a basic overview of the software itself.

CTP 8871. MS Word 2003-2007 Conversion Intermediate. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for individuals who have basic knowledge of Word 2003 and wish to expand their knowledge to an intermediate level using MS Word 2007.

CTP 8872. MS Word 2003-2007 Conversion Advanced. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for intermediate level MS Word users that are switching from Office 2003 to Office 2007.

CTP 8873. MS PowerPoint 2003-2007 Conversion Basic. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is for students who have a basic knowledge of PowerPoint 2003 and want to learn to extend their knowledge to PowerPoint 2007.

CTP 8874. MS PowerPoint 2003-2007 Conversion Intermediate. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for those who are familiar with the basics of creating a presentation in PowerPoint 2003 and would like to create more dynamic presentations in MS PowerPoint 2007.

CTP 8875. MS PowerPoint 2003-2007 Conversion Adv.. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for the individual who has an intermediate knowledge of PowerPoint 2003 and wants to advance their skills using the 2007 version of PowerPoint.

CTP 8940. First Aid/CPR/AED Training. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will teach basic life saving and first aid skills to employees who may need to apply them in case of emergencies in the workplace.

CTP 9100. Basic Pneumatics. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course offers a basic knowledge of pneumatics including pneumatic power, circuit connections and basic cylinder circuits.

CTP 9101. Basic Electric Machines. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course offers a basic knowledge of electric machines including motor speed, torque and performance and an introduction to motors.

CTP 9102. Electric Relay Control. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course teaches electric relay control of AC electric motors found in industrial, commercial, and residential applications. Participants will get an introduction to electrical motor control, motor control and overload protection, control transformers, control logic, and relays and starters.

CTP 9103. Electrical Wiring. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will teach participants how to install modern electrical control systems, including: electrical prints and panels, wiring between panels, color coding, control system wiring and wire bundling.

CTP 9104. Power Distribution. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course teaches participants how to install electrical power distribution systems from the bus bar to the control panel. Participants will learn about basic and advanced raceways, conduit bending, conductors, disconnects and overload protection, conduit sizing and distribution system installation.

CTP 9105. Programmable Logic Controller SLC500. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
PLC SLC500 teaches participants the fundamentals and troubleshooting of Programmable Logic Controllers (PLC). These fundamentals include basic PLC operation and programming, motor control, event sequencing, I/O interfacing and testing, process control, material transfer, analog control, RIO networks, operator interfaces and PLC networking.

Cyber Crime Technology (CCT)

CCT 7000. Digital Forensics Prep. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
The course provides students with the requisite knowledge to begin their studies in Digital Forensics. Students will learn to use Windows XP and its file structure to do basic computer functions as well as learn the physical components of a modern PC.

CCT 7009. Certified Computer Examiner Preparation. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is part of the world of Digital Forensics. This course prepares students to take the written and practical portions of the Certified Computer Examiner certification. To enter the field students need a clean criminal record and a good understanding of computer hardware and software. A+ certification or comparable knowledge would be recommended before taking this course.

CCT 7011. 220-601 for Forensics Part 1. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is the first in a four part series building competencies in the areas of installation, preventative maintenance, networking, security and troubleshooting. The course also prepares students to have excellent customer service and communication skills to work with clients.

CCT 7012. 220-601 for Forensics Part 2. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is the second in a four part series building competencies in the areas of installation, preventative maintenance, networking, security and troubleshooting. The course also prepares students to have excellent customer service and communication skills to work with clients.

CCT 7013. 220-601 for Forensics Part 3. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is the third in a four part series building competencies in the areas of installation, preventative maintenance, networking, security and troubleshooting. The course also prepares students to have excellent customer service and communication skills to work with clients.
CCT 7014. 220-601 for Forensics Part 4. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the fourth in a four part series building competencies in the areas of installation, preventative maintenance, networking, security and troubleshooting. This course also prepares students to have excellent customer service and communication skills to work with clients.

CCT 7025. Pre-Cisco. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course serves as a preparation course for students with limited or no previous networking knowledge. This course also prepares students who have no past experience with Cisco Academy portal and Moodle.

CCT 7030. Fundamentals of Deployment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to entry level deployment of computer systems.

CCT 7126. ICND 1 Boot Camp. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT 7126 course is the first of two courses setup up in a boot camp style to help students pass their Cisco CCNA certification. The first course will prepare students for the ICND 1 which is the first part of the Cisco CCNA exam. The second course will prepare the students for the ICND 2 exam and be CCNA certified. All students will have to register and take the Cisco ICND 1 test at a testing center during the last week of Instructions. Prerequisites: Take NET 125 NET 126

CCT 7225. ICND 2 Boot Camp. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT 7225-12 course is the 2nd of two courses setup up in a boot camp style to help students pass their Cisco CCNA certification. The first course will prepare students for the ICND 1 which is the first part of the Cisco CCNA exam. The second course will prepare the students for the ICND 2 exam and be CCNA certified. All students will have to register and take the Cisco ICND 2 test at a testing center during the last week of Instructions.

CCT 8025. Pre-Cisco. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course serves as a preparation course for students with limited or no previous networking knowledge. This course also prepares students who have no past experience with Cisco Academy portal and Moodle.

CCT 8240. ACE Prep Part 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is part 1 of the AccessData Certified Examiner (A.C.E) certification training.

CCT 8241. ACE Prep Part 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is Part 2 of the A.C.E. certification training.

CCT 8242. Accelerated ACE Prep. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Accelerated AccessData Certified Examiner class provides the knowledge and skills necessary to install, configure and effectively use FTK Imager, Forensic Toolkit, Password Recovery Toolkit, Registry Viewer. Participants will also use AccessData products to conduct forensic investigations on various systems and locate forensic artifacts. This course operates under a shorter time frame to allow a more expeditious complete of the ACE certification.

CCT 8251. Internet Forensics 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8251 course is intended to build on the knowledge acquired by students in the digital forensics program. Part 1 of this 3 part course focuses on the recovery of digital artifacts left behind during the use of common web browsers and other internet enabled applications. The course will teach students how to recover, interpret, and report internet evidence. Prerequisites: Take CCT 240 or CCT 241

CCT 8252. Internet Forensics 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8252 course is intended to build on the knowledge acquired by students in the digital forensics program. Part 2 of this 3 part course focuses on the discovery and documentation of digital artifacts left behind during the use of today’s popular internet enabled applications. The course will teach students how to recover, interpret, and report internet evidence. Prerequisites: Take CCT 8251 with a minimum grade of S

CCT 8253. Internet Forensics 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8253 course is intended to build on the knowledge acquired by students in the digital forensics program. Part 3 of this 3 part course focuses on the discovery and documentation of digital artifacts left behind during the use of today’s popular web browsers and internet enabled applications. The course will give students the ability to practice recovering, interpreting, and reporting of internet evidence. Prerequisites: Take CCT 8252 with a minimum grade of S

CCT 8261. Mobile Device Forensics 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8261 course is part one of the Mobile Devices course series intended to build on the knowledge acquired by students throughout the digital forensics program. The series focuses on the discovery and documentation of digital artifacts from today’s mobile devices. The course series will teach students how to recover, interpret, and report evidence.

CCT 8262. Mobile Device Forensics 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8262 course is part two of the Mobile Devices course series intended to build on the knowledge acquired by students throughout the digital forensics program. The series focuses on the discovery and documentation of digital artifacts from today’s mobile devices. The course series will teach students how to recover, interpret, and report evidence.

CCT 8263. Mobile Device Forensics 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8263 course is part three of the Mobile Devices course series intended to build on the knowledge acquired by students throughout the digital forensics program. The series focuses on the discovery and documentation of digital artifacts from today’s mobile devices. The course series will teach students how to recover, interpret, and report evidence.

CCT 8271. Mac Forensics Module 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the first of a three-part series of Macintosh forensics. This first module introduces the Apple Mac OS X user interface and operating/file system function. Topics include OS X interface basics such as using Finder, creating user accounts, using File Vault and installing/uninstalling applications. GPT disk structure and date and time acquisition will be covered along with the extensible firmware interface.
Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

Distributed Processing Module 2 is the second of a three part sequence that allows users to leverage the processing power of multiple computers to process and index massive volumes of digital evidence faster than any other solution available today. When analyzing digital evidence, investigators must process the captured data to break out compound files and index documents and email, so they can be searched effectively. Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

Distributed Processing Module 3 is the third of a three part sequence that allows users to leverage the processing power of multiple computers to process and index massive volumes of digital evidence faster than any other solution available today. When analyzing digital evidence, investigators must process the captured data to break out compound files and index documents and email, so they can be searched effectively. Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

CCT 8278. Distributed Processing Module 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Distributed Processing Module 2 is the second of a three part sequence that allows users to leverage the processing power of multiple computers to process and index massive volumes of digital evidence faster than any other solution available today. When analyzing digital evidence, investigators must process the captured data to break out compound files and index documents and email, so they can be searched effectively. Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

CCT 8279. Distributed Processing Module 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Distributed Processing Module 3 is the third of a three part sequence that allows users to leverage the processing power of multiple computers to process and index massive volumes of digital evidence faster than any other solution available today. When analyzing digital evidence, investigators must process the captured data to break out compound files and index documents and email, so they can be searched effectively. Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

CCT 8280. Data Recovery Techniques. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The accelerated CCT8280 course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, internet issues and testimony considerations.

CCT 8299. Combined Distributed Processing Module 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Distributed Processing allows users to leverage the processing power of multiple computers to process and index massive volumes of digital evidence faster than any other solution available today. When analyzing digital evidence, investigators must process the captured data to break out compound files and index documents and email, so they can be searched effectively. Distributed Processing can leverage up to four processing workers, one on the local examiner computer and three distributed computers. This allows them process terabytes of computer evidence in a fraction of the time it would take normally.

CCT 8310. Microsoft Sharepoint Foundation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The SharePoint Foundation course introduces the skills you need to use, create and edit content in a team website. You will also create and perform basic management of a team site using SharePoint Foundation 2010 and manage site components as a site administrator.

CCT 8341. ACE certification prepartation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8341 course is intended to prepare students to successfully complete the AccessData Certified Examiner (ACE) exam. The industry standard ACE certification demonstrates proficiency with AccessData's Forensic Toolkit, one of the most widely used software tools in the field of digital forensics. The course is intended to teach the student to focus learned digital forensic investigative techniques to solve a complete case.
Prerequisites: Take CCT 241
CCT 8371. Registry Forensics 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8371 course is the first of a three-part series on Windows Registry Forensics. This first module introduces the Windows Registry in various versions of Microsoft Windows systems. Topics include static and dynamic registry files, registry hives and structure and operating system specific implementations. Students will utilize registry specific tools to view registry files in the file system.

CCT 8372. Registry Forensics 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8372 course is the second of a three-part series on Windows Registry Forensics. This second module introduces specific evidentiary artifacts located in the Windows Registry and how to obtain registry files from a static or live acquisition. This module covers the artifacts located within the five key registry files of Windows XP and subsequent Microsoft operating systems as well as the two key registry files of the Windows 9x operating systems.
Prerequisites: Take CCT 8371 with a minimum grade of S

CCT 8373. Registry Forensics 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CCT8373 course is the third of a three-part series on Windows Registry Forensics. This final module ties together the knowledge obtained from the prior classes in a practical assessment.
Prerequisites: Take CCT 8373 with a minimum grade of S

CCT 8401. FTK Part 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the first of three courses introducing the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations.

CCT 8402. FTK Part 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the first of three courses introducing the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations.

CCT 8403. FTK Part 3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the third of three courses introducing the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations.

CCT 8404. Forensics Tool Kit Part 4. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the fourth in a series introducing the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations.

Dental (DEN)

Design: Creative (DES)
Identity Theft claimed over 10 million victims last year. Law-enforcement authorities call it the fastest growing crime in our country today. For a criminal, identity theft is a relatively low-risk, high-reward endeavor. Consequently, most victims don’t even know how it happened or who stole their financial information. Find out what steps you need to take to keep from becoming a statistic and what recourse you have if you are a victim. Arm yourself with knowledge and take control of your personal information.

ECO 8201. Let the Buyer Beware. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
“If it sounds too good to be true, it usually is.” This course is a must for savvy consumers. Learn how to protect yourself and your family from rip-offs, bogus deals, and other consumer headaches. This course will give - you - the buyer, the tools needed to make wise decisions in today’s marketplace. Topics cover most major expenses, from buying a new car to buying a home, paying for college, or booking a cruise. Participants will receive a copy of the GSA Consumer Action Handbook.

ECO 8202. Money Smart - Part I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Financial education fosters financial stability for individuals and for the entire community. The more you know about credit and banking services, the more likely you are to increase your savings, buy a home and improve your overall financial health and well-being. FDIC’s Money Smart curriculum helps individuals build financial knowledge, develop financial confidence and use banking services effectively. Part I is an introduction to banking services, credit, checking accounts, budgeting and tracking your money effectively and the importance of savings. This course is a must for anyone who wants to establish sound financial practices. Materials are included in the cost of the course.

ECO 8203. Money Smart - Part II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Financial education fosters financial stability for individuals and for the entire community. The more you know about credit and banking services, the more likely you are to increase your savings, buy a home, and improve your overall financial health and well-being. FDIC’s Money Smart curriculum helps individuals build financial knowledge, develop financial confidence and use banking services effectively. Part II covers your rights as a consumer, how credit history affects credit future, credit cards, borrowing basics, and buying a home, perhaps the biggest investment of your life. This course is a must for anyone who wants to become financially savvy in today’s world. Materials are included in the cost of the course.

ECO 8204. Identity Theft: Prevention & Survival. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Identity Theft claimed over 10 million victims last year. Law-enforcement authorities call it the fastest growing crime in our country today. For a criminal, identity theft is a relatively low-risk, high-reward endeavor. Consequently, most victims don’t even know how it happened or who stole their financial information. Find out what steps you need to take to keep from becoming a statistic and what recourse you have if you are a victim. Arm yourself with knowledge and take control of your personal information.

ECO 8205. Retirement Planning Today. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You have many options for financing your retirement, but have you taken the time to plan how you will live during your retirement years? Without a clear plan, it is difficult to prepare financially for the next chapter of your life. Understand not only the traditional retirement plans, but explore the new view of retirement with additional opportunities and responsibilities. This course is appropriate for individuals just starting out in their careers, as well as those considering retirement.

ECO 8206. Self-Help: Credit Repair Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Credit plays an important role in our society. It is often misunderstood and misused, which can have a negative impact on our lives for many years. The purpose of this class is to provide a basic understanding of credit reports. Participants will learn about important credit legislation and the truth about credit counseling, debt management, and bankruptcy program. Participants will also learn the right way to correct and restore their credit.

ECO 8207. Self-Help: Improving Your Credit Score. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Credit scores are utilized by creditors, insurance companies, employers and even licensing agencies as a tool to determine a person’s creditworthiness and character. Unfortunately, many people do not fully understand the importance of this three-digit number. This class will examine credit scores and their potential impact on someone’s future. Participants will learn to improve and maintain good credit scores.

ECO 8208. How to Set Up and Maintain a Personal Budget for Financial Success!. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Many people live paycheck to paycheck without realizing where each dollar is spent. As a result, consumer debt has increased and financial goals are never met. The purpose of this class is to provide the participants with the knowledge to develop and maintain a workable financial budget. The class also discusses ways to reduce expenses and add income in order to meet budgetary needs.

ECO 8209. How to Get Out and Stay Out of Debt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Consumer debt has increased substantially over the last decade, putting financial stress on families. The purpose of this class is to explain the negative effects of uncontrolled debt and how to use credit wisely. This course will provide fundamental tools for reducing overall consumer debt.

ECO 8210. Understanding Credit and Credit Scores. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Your credit score. It’s just three numbers, but it dictates whether you’ll get credit and what interest rate you will pay. Insurers use it to set premiums. Landlords use it to make renting decisions. Discover how credit and credit scores affect many aspects of your life.

ECO 8211. Using Credit Wisely: Credit Cards, Personal Loans, Buying a House/Car. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Credit is a necessity in today’s world, yet many consumers are not knowledgeable about using credit wisely. Misinformation or credit abuse may lead to financial stress including collections, judgments, foreclosure, and bankruptcy, which can all have a negative impact on one’s financial future.
ECO 8212. Managing Debt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Debt has become a necessary evil in today’s society. Debt is created when you obtain a mortgage, a car loan, and a credit card. Although debt may be beneficial to obtain valuable assets, if not properly managed, debt can easily become out-of-control. This course will focus on ways to manage and eliminate debt.

ECO 8213. Financial Security: Insurance, Identity Theft, and Consumer Protection. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Risks are found in all aspects of daily living. This course will focus on three major areas that may affect our financial success. Many consumers do not fully understand insurance policies available for financial security. Participants will learn how to protect themselves from various financial risks.

ECO 8215. Budgeting Basics for Paying Off Debt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
It’s never too late to gain control of your finances. Are you living paycheck to paycheck without knowing where each dollar is spent? Understand debt and gain the knowledge to create a workable financial budget that will put you back in control of your finances.

ECO 8220. Becoming An Educated Consumer. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Identity theft...Internet shopping...Scams and Frauds... Today’s headlines require us to be a Smart Shopper. This course will help you become an educated and informed consumer within the marketplace. Whether purchasing a service or a product, this course will offer important tools to use when making buying and spending decisions. Vital information on ways to avoid becoming a victim of frauds and scams will be included.

ECO 8230. Social Security and Medicare: Where do I begin?. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Are you a Baby Boomer, confused on how to get started with Social Security and Medicare? This information session will simplify the puzzle by examining each component of these programs in a step-by-step, easy to understand approach. Learn what benefits are provided and how to plan for and utilize the benefits to their greatest value. Specific topics will include Social Security limitations and benefits and Medicare Part A through D (benefits, costs and limitations). You will take home a handy resource book to help you navigate the Social Security and Medicare systems with confidence.

ECO 8244. Income Tax Preparation Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
It’s that time of year again! Are you curious about credits or deductions you might be entitled to? This tax workshop is especially designed for individuals who wish to prepare their own income tax return. Participants will gain a better understanding of tax rules and become more organized with their personal income tax preparation. Taught by a CPA, the course covers the latest information and changes related to preparing your federal and state returns. Planning and time saving tips for future income tax preparation are also included.

ECO 8250. Investing for Life. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
New and more experienced investors alike will benefit from discussions on planning and setting investment goals, survey stocks, mutual funds, IRA’s, government bonds and tax saving investments. Start here and get a handle on your financial future. All CPCC Financial Education classes are taught for education purposes only.
EDU 7018. Teaching the Learning Disabled Student in the Regular Classroom. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will acquaint the student with the history, characteristics, treatment and understanding of students classified as exceptional children. Practical applications will be provided for anyone teaching or interacting with exceptional children. Students will examine various classifications of exceptional children in detail ranging from students including, but not limited to, students with ADHD, learning disabilities, behavior disorders and gifted students.

EDU 7021. Introduction to Attention Deficit Disorder. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course helps participants develop an understanding of attention deficit disorders (ADHD), how these affect class work and personal relationships as well as learning to adapt strategies for classroom use. Purchase materials in class. 2.0 CEU's.

EDU 7033. Motivating Students. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Based on current theories of motivation from the field of Educational Psychology, this course will discuss underachievers and uninterested students as well as key concepts of personal and external factors that influence a student’s motivation to learn. Participants will develop practical classroom applications for individual learners at all grade levels.

EDU 7034. Motivating Students Education. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
Based on current theories of motivation from the field of educational psychology, this course will discuss underachievers and uninterested students as well as key concepts of personal and external factors that influence a student’s motivation to learn. Participants will develop practical classroom applications for individual learners at all grade levels.

EDU 7038. Learning Centers in the Classroom. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore a variety of uses for learning centers: as practice areas, for use with group activities, having student generated materials, reinforcement of content, as an extension of the curriculum. Procedures for setting up and running centers and evaluating student success at centers.

EDU 7091. Teaching the Learning Disabled Student in the Regular Classroom. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
This online course will introduce students to the history, characteristics, treatment and understanding of students classified as exceptional children. Practical applications will be provided for anyone teaching or interacting with exceptional children. Students will examine various classifications of exceptional children in detail including, but not limited to, students with ADHD, learning disabilities, behavior disorders and gifted students.

EDU 7101. Stress Management. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Experience a multitude of ways to manage your stress. This two and one-half day class is filled with practical ways to handle the daily stresses of teaching and life. Purchase book in CPCC Bookstore prior to first class. 1.5 CEUs.

EDU 7103. First Aid & CPR for Teachers. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Learn first aid and CPR for infants, child and adults using the American Red Cross First Aid Program. Purchase American Red Cross text and pocket mask prior to class. Card fee upon completion. 1.5 CEUs.

EDU 7105. Introduction to the Gifted. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Recommended for educators, specialists and parents. Designed to support regular classroom teachers and gifted teachers. Explore characteristics, behaviors, strategies and techniques every teacher can use to meet the academic needs of the gifted and talented. Purchase text prior to class, 2.0 CEUs.

EDU 7109. Critical & Creative Thnking Skills. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide experiences in teaching and learning strategies for developing critical and creative thinking skills. Major models and strategies for thinking and questioning will be utilized for creating an active learning atmosphere. 1.5 CEU’s.

EDU 7110. Higher Level Thinking Skills Across the Curriculum. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will explore strategies which promote higher level thinking skills across the curriculum. Processes and application of problem solving, creative and critical thinking are emphasized. Purchase book in CPCC bookstore prior to first class. 1.5 CEU’S.

EDU 7113. Curriculum Compacting. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the various roles of curriculum compacting in helping academically gifted students reach their potential. a variety of curriculum compacting styles will be examined with their application for meeting ag students, needs in both a “regular” classroom and ag resource pull-Out program.

EDU 7115. Learning Styles and Unit Plans. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide a framework for developing integrated unit plans which incorporate student-centered learning, a variety of teaching models, all learning styles, and higher order thinking skills. Clear objectives, criterion referencing, integration of content areas and learning styles will be essential components. Purchase materials in class. 1.5 CEUs.

EDU 7126. Introduction to Multiple Intelligences And Learning Styles. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Using Multiple Intelligence, this course explores theory and classroom practices for understanding how students learn. Experience how to access and teach to individual student learning styles. Develop lessons, activities and assessment tools to reach and teach all students.

EDU 7127. Differentiating Instruction for All Students. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide participants with examples and strategies to use in today’s increasingly diverse classrooms. Teachers will learn how to differentiate or structure lessons at every grade level and content area.

EDU 7129. Dimensions of Learning. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore a learner centered approach to education. This course will explain how learning experiences can help students form positive attitudes about school, acquire and integrate knowledge, and use knowledge meaningful. Purchase text in CPCC bookstore. 2.0 CEUs.

EDU 7132. Issues and Trends in Gifted Education. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on a discussion of current theories of intelligence and curriculum design for gifted learners. Current research by David Sternberg, David Coleman and others form the basis for seminar and discussion.
EDU 7135. Alternative Assessments. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
To introduce teachers to alternative methods of assessments other than traditional paper/pencil tests.

EDU 7148. Accelerated Learning Using Quantum Teaching. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn how to orchestrate student success. Focus on how to facilitate learning artfully and purposefully, regardless of the subject matter. Purchase book in CPCC book store prior to first class. 1.5 CEU’S.

EDU 7157. Discipline Strategies Necessary. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop will focus on the management of conflict in the classroom. Various discipline models will be identified. Participants will leave with specific strategies to assist them in their day-to-day as professionals. 10 contact hours = 1 CEU.

EDU 7163. MS Publisher for Educators. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Using MS Publisher students will create newsletters, flyers, brochures, banners and stationary. This comprehensive course covers various publisher tools: how to insert various forms of pictures and worksheets, and incorporate stylistic art forms and watermarks. Textbook is optional.

EDU 7164. Microsoft Word for Teachers. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Microsoft Word for Teachers is an introductory class in which the student will be able to demonstrate a working knowledge of Word for Windows. The student will learn paragraph and document formatting as well as basic work processing techniques. Purchase text at the CPCC Bookstore prior to first class. 2.0 CEUs Prerequisite: EDU7198 (Windows 98) or equivalent experience with software applications using Windows.

EDU 7167. Using the Internet to Strengthen Curriculum. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce learners to the use of the Internet to develop lessons that will enhance curriculum and student learning.

EDU 7169. Introduction to Excel. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
(Windows 98) or equivalent experience with software applications using Windows. This entry level course is designed to introduce the student to the basics of operating Microsoft Excel. Students will use this application software program to create electronic spreadsheets, graphics, and databases. Purchase text in CPCC Bookstore prior to first class. 3.0 CEUs. Prerequisite: EDU7198(Intro to Windows 98).

EDU 7171. Intro to HTML for Educators. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce students to the basic theories and techniques needed to write proper documents using the Hypertext Markup Language.

EDU 7173. Learning Access for Teachers. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Educators will explore possible classroom application of database software and students will learn to create tables and learn to design simple forms using Microsoft Access. 2.0 CEU’s. Purchase required text in bookstore prior to first class. Prerequisite: Introduction to Windows and Microsoft Word.

EDU 7187. Introduction to PowerPoint. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce the capabilities of Microsoft PowerPoint as a powerful multimedia presentation software application. Participants will create, edit, format, save, and print presentations using Microsoft PowerPoint. Text is optional. 10 contact hours=1 CEU.

EDU 7188. Creating Web Pages for Educators. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Join the educational community and create your own website to communicate with parents and peers. Under guided instruction you will develop Web pages using HTML and CSS that incorporate text, tables and images. Topic areas include developing structure and content, basic formatting using Cascading Style Sheets, navigation techniques, incorporating graphics and writing for the web. Instructor will provide all materials. 2.0 CEUs.

EDU 7190. MS Office for Educators Office for Teachers. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
For novice or advanced participants review and practice components of MS Office, Word, Excel, and PowerPoint. Textbook optional. 2.0 CEUs.

EDU 7197. Integrating Technology Into the Classroom. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will explore practical and efficient ways to integrate technology resources and technology-based methods into everyday curriculum-specific practices. This class will present the fundamentals of computers and educational technology in an easy-to-understand format.

EDU 7198. Windows for Teachers. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for those with little or no prior PC experience. Personal computer user will discover the basics of computer technology utilizing the Windows 98 operating system. Purchase text in CPCC bookstore prior to first class. 2.0 CEUs No prerequisites.

EDU 7202. Somewhere Between Workshops and Worksheets. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Discover creative ways to present curriculum using a variety of instructional strategies designed to maximize learning. 1.5 ceus.

EDU 7205. Teaching Thinking Skills. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce and practice the seminar approach to teaching with an emphasis on music to generate understanding and aid in retention. Teachers will participate in a process to create stimulating environments where hey and their students can develop through reading, listening, speaking and writing. 3.0 CEUs.

EDU 7208. Reading with Children’s Literature. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will integrate children’s literature into the elementary school curriculum. Students will examine author themes, styles and purpose.

EDU 7210. Middle School Learner. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore the characteristics of the middle level learner with an emphasis on physical, psychological, and intellectual development. Analyze various strategies for meeting the unique learning needs of the middle school student and develop transferable teaching methods for use in middle school classrooms. This is a state approved Lateral Entry course. Purchase text prior to class. 3.0 CEUs.

EDU 7212. Developing Real-Life Theme Based Units. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for elementary teachers to develop integrated theme-based units using an umbrella-style plan. Units will include a focus on literature with integration of other subject areas of math, social studies, and science. 1.5 CEUs.
EDU 7215. Literacy Strategies for Middle School. 0.0 Hours.  
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course explores the latest approaches to teaching, reading and writing to students in the middle grades. The course will present an overview of learning strategies needed by these students.

EDU 7218. Vocabulary Strategies for Content Reading. 0.0 Hours.  
Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0  
This online course will support regular classroom teachers, reading teachers and literacy facilitators. Participants will explore vocabulary strategies and techniques that every teacher can use to meet the academic needs of the students in their schools and classrooms. Teachers will use text as a guideline for online participation. 10 contact hours = 1 CEU.

EDU 7219. Effective Writing Strategies, 6-12. 0.0 Hours.  
Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will expand the capacity of all 6-12 teachers to use writing in their classrooms. Teachers of all content areas will learn about brainstorming, revising and editing strategies as well as developing writing workshops in your own classroom. Participants will also practice ideas for helping 6-12 students improve their writing based on the type of writing assigned! This course will be effective for both Language Arts and other content area teachers.

EDU 7222. Strategies for Block Scheduling. 0.0 Hours.  
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
New-Explore instructional strategies and effective activities for classrooms using Block Scheduling. Topics include Multiple Intelligence, Brain Research, Centers, Active Learning, Higher Level Thinking Skills and more. Experience activities and develop new ideas for use in your classroom.

EDU 7223. Enriching Reading Through Creative Strategies. 0.0 Hours.  
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course focuses on bringing creative strategies to teachers' daily literacy instruction. It presents ideas and techniques that can be used in the elementary classroom in order to enrich reading practices and stimulate a passion for reading among students. Strategies are meant to support and engage children while teaching them about the various genres of literature, decoding, fluency and comprehension strategies, as well as strengthening the connection between reading and writing. Specific techniques are presented that are helpful when encouraging struggling or reluctant readers and writers, and may be taken immediately back to the classroom to increase student success.

EDU 7227. Using Multiple Intelligences in Lesson Design. 0.0 Hours.  
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will give participants an opportunity to plan lessons using the Multiple Intelligences. 1.5 CEUs.

EDU 7229. Brain Compatible Teaching Strategies. 0.0 Hours.  
Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0  
Explore and experience concepts on brain research to help engage students, stimulate their learning and keep them motivated. Learn teaching tips and strategies which support the ways students' brains work. Purchase text in CPCC Bookstore. 2.1 CEUs.

EDU 7231. Discovering Your Educational Philosophy. 0.0 Hours.  
Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will help educators understand and trace the issues, theories, and trends in the educational world. Teachers will discover their own personal educational philosophies and realize how those philosophies have been influenced by historical and modern theories. Learn how personal beliefs influence the way a classroom is managed and how information is disseminated. 10 contact hours = 1 CEU.

EDU 7232. Behavior Disorders. 0.0 Hours.  
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will focus on the characteristics, causes, and treatment for various behavioral disorders. Participants will develop strategies and adaptations to ensure these students greater success in the classroom.

EDU 7233. Effective Parent Communication. 0.0 Hours.  
Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will give educators invaluable tools for working with parents. Teachers will discover new ways to involve parents, gain support, and communicate effectively. Many important issues and problem solving techniques will be discussed, including how to build trust, how to handle an "angry parent," and how to keep parents adequately informed without spending an inordinate amount of time writing letters or typing emails. 10 contact hours = 1 CEU.

EDU 7238. Strategies to Improve Academic Performance. 0.0 Hours.  
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will identify key principles of learning that will enhance academic performance. Participants will examine how the role of the teacher and the classroom environment impact learning.

EDU 7241. Best Practices in Early Childhood Education. 0.0 Hours.  
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
The course will include theory, practical application, and insights, enabling the early childhood educator to incorporate developmentally appropriate practices into their classroom. Areas of focus include: identifying major benefits and the need for developmentally appropriate practices; increasing student initiated involvement through developmentally appropriate activities; assessing and modifying curriculum to better serve the needs of Pre-K children.

EDU 7253. Planning Integrated Curriculum: The Big Picture. 0.0 Hours.  
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to help participants see how it is possible to integrate curriculum. Then participants will practice planning integrated lessons/units to utilize in the classroom. 10 contact hours = 1 CEU.

EDU 7257. Discipline with Dignity. 0.0 Hours.  
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will focus on promoting student responsibility through social development rather than coercing students into making constructive changes in their behavior. Marvin Marshall's "Discipline Without Stress Punishments or Rewards" details theories behind the importance of reducing irresponsible behavior by viewing misbehavior as an academic difficulty and an opportunity to teach and learn. This approach creates a classroom in which students feel safe, enjoy learning and care for each other.

EDU 7260. Successful and Effective Teaching. 0.0 Hours.  
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is recommended for all teachers and substitute teachers. This course utilizes the textbook "The First Days of School: How To Be An Effective Teacher" by Harry K Wong. Topics of the course include: instructional design, classroom management, motivating students, student diversity and professional development.

EDU 7261. Successful and Effective Teaching. 0.0 Hours.  
Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0  
Recommended for all teachers and substitute teachers, this course utilizes the textbook "The First Days of School: How To Be An Effective Teacher" by Harry K Wong. Topics of the course include: instructional design, classroom management, motivating students, student diversity and professional development.
EDU 7262. Creating a Positive Classroom Environment. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on strategies to enhance learning and student achievement by creating a positive, stimulating environment.

EDU 7266. Utilizing Gradebook and Test Template in Microsoft Works. 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore the possibilities of more efficient record-keeping and test creation with the Gradebook and the Gradebook and Test Template features of Microsoft Works. This will make your life as a teacher much easier and more efficient if you are accustomed to traditional methods of recording grades in a gradebook. Discover the tremendous tool in Test Template, and bring a test of your own to try out the features of this component of Microsoft Works. 1.0 CEU's. Prerequisite: Windows Experience.

EDU 7301. Hot Topics in Education. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will have a number of topics that revolve from semester to semester. Topics will be chosen for their timeliness and appropriateness to K-12 teachers. Topics will include issues like: the Minds of Boys, Impacts of NCLB, books from noted education authors, etc. Each term will be an exciting chance to learn and engage in current trends and issues that arise quickly in the field of education.

EDU 7308. Authors of Current Children's Literature II. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Greater focus on inspiring Authors of Current Children's Literature. New authors will be explored in depth at each session. Powerful teaching strategies will be discussed, demonstrated and developed for use in lesson plans and classroom activities. 1.5 CEUs.

EDU 7309. Spanish for Educators. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
School administrators, teachers, counselors and support staff will build skills to communicate in Spanish with Hispanic students, parents and visitors. No prior Spanish necessary. 10 contact hours = 1 CEU.

EDU 7310. Conflict Resolution for Educators. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore necessary skills for managing conflict and diffusing conflict situations in school settings. Participants will develop lesson plans for curriculum infusion assuring successful management of conflict situations in their classrooms. 1.5 CEUs.

EDU 7311. Strategies for Struggling Readers. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide practical strategies in every content area for struggling readers in grades 3 through 5. The course will focus on strategies for comprehension skills and innovative ideas for decoding words.

EDU 7312. Technology to Work Smarter...Not Harder. 0.0 Hours.
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will concentrate on using technology to maximize student assessment and accountability. Lesson plan templates, homework hotline, gradebook text banks, and PLATO assessment will be some of the creative ways presented to integrate instruction and technology. Prerequisite: Windows experience. 1.5 CEU's.

EDU 7313. Integrating Music Into K-12 Classrooms To Enhance Learning. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Experience ways to increase student achievement and motivation through the use of music in the classroom. 10 contact hours = 1 CEU.

EDU 7314. Making the Most of Tutoring. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will explore techniques designed around the Learning Strategies Model for effective tutoring and is designed to give participants ideas and strategies to improve tutoring.

EDU 7315. Teacher Talk. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Teachers will meet on a monthly basis to discuss current issues in the education profession in an informal peer group setting. Possible discussion topics include curriculum, parental involvement, professional stress, diversity and other issues as decided upon by the participants. Guest speakers are available for each of the chosen topics. No text required. 1.5 CEUs.

EDU 7316. Implementing Guided Reading in the K-2 Classroom. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Explore multiple components of Balanced Literacy with an emphasis on Guided Reading. Participants will learn the role of a teacher and the role of a student within the framework of a Balanced Literacy Program.

EDU 7317. Interactive Writing Techniques for K-2. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Experience strategies to support developing readers and writers from preK-2nd grade, as well as small groups of 2nd or 3rd graders who need stronger support in early writing skills. Examine the technique of "sharing the pen" while viewing teacher demonstrations.

EDU 7318. Teaching Students Who Speak Other Languages. 0.0 Hours.
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will assist classroom teachers to discover the richness of cultural differences and address the academic needs of students who speak other languages. Topic areas include: multicultural instructional strategies, addressing individual uniqueness and cultural diversity, building relationships with students and parents, resources (community, local and state), and enhancing classroom interaction between all students.

EDU 7319. Teacher Resources. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide teachers with resources available to them at the local, state, and national levels. Community programs, non-profit organizations, published materials, and webbased sources will be addressed in the areas of curriculum design, social services, incentive programs, and educating students with special needs. Purchase materials in class.

EDU 7320. T.R.E.E.S-Training Resources for Early Childhood Educators. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Professionals working with pre-schoolers - 2nd grade, will learn to help at-risk children develop their interpersonal and social skills, while reducing inappropriate behaviors of individual students in group settings. 1.5 CEUs.

EDU 7321. C.C.C - Creative Career Connections. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Educators in any field will experience professional and personal growth while expanding their creative abilities and working through blocks that contribute to career burnout. This interactive course will build on concepts from "The Artist's Way" and other sources. 1.5 CEUs.

EDU 7322. Exploring Expressive Arts. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Engage in a variety of expressive art & creative mediums and explore their application in teaching multiple concepts to children and adolescents. No artistic experience is required as the focus is on the revolving process rather than the end product. 2.0 CEUs.
EDU 7323. Celebrating Classroom Diversity. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Provides educators with the tools to celebrate diversity, and help reduce racial, religious, ethnic and social prejudice in their classrooms. Activities for personal bias, valuing self, conflict management, communication strategies, and team building will be provided. Purchase text in CPCC bookstore. 2.0 CEUs.

EDU 7324. Accommodating Diverse Learners. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is for teachers of diverse learners across grade levels and content areas. Learn strategies for teaching, reading, writing, math, science and social studies; and developing, selecting and modifying curriculum, Concrete examples and recommendations will be provided.

EDU 7325. PRAXIS II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
A 10-hour comprehensive review of information on the Praxis II Test for Elementary Education.

EDU 7326. Building Community Through Inclusion. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
The focus of this course is the design and assessment of teaching and learning models that promote effective practices for the full integration of all students as productive members of classroom learning communities. Participants will review current special education legislation; discuss teacher roles and collaborative responsibilities with parents, colleagues, and community agencies; and reflect on their own competence in promoting positive social interaction among students. Course emphasis is on the development of accommodation strategies that are an integral part of the classroom structure and are based on curricular expectations as well as the abilities and needs of individual students. Course content will also include teacher-generated case studies and research-based recommendations that address the learning needs and well-being of all students.

EDU 7327. Writers Workshop K-4. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will assist your teaching to turn students into enthusiastic writers and make teaching - and learning- creative writing a welcome part of the school day. Explore teaching strategies for implementing a writing workshop approach in your classroom. The instructor will provide helpful, practical skills and advice pertaining to: writing development, inventive spelling, topic selection, writing rehearsal and reinforcing the joy of writing. Purchase text prior to class. 3.0 CEUs.

EDU 7328. Integrating Technology and Children’s Literature. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will explore the use of technology as an essential component in studying Children’s Literature and the new paradigm that goes beyond paper. 10 contact hours = 1CEU.

EDU 7329. Spanish for Educators II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course continues to build Spanish vocabulary, with emphasis on teacher-pupil relationships and classroom management. Additional topics for discussion will include communicating with adults, attending to emergencies, and community resources. 10 contact hours = 1 CEU.

EDU 7330. Preparing for the Praxis I Test. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review pre-professional skills in reading, writing and mathematics in preparation for the Praxis I exam. 10 contact hours = 1 CEU.

EDU 7331. Students As Presentors & Speakers. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Classroom exercises and activities for creating masterful speakers, presenters and storytellers. Ideas to help assist students overcome their fear of public speaking and flourish in front of an audience. Purchase text in CPCC bookstore. 1.5 CEUs.

EDU 7332. Taking Care of the Counselor. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Current ideas for dealing with the diversity of roles, budgets, populations and expectations are presented. Professional resources and materials are shared. No text. 2.0 CEUs.

EDU 7333. Reading, Writing and Technology in Upper Grades, 6-12. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers strategies for teaching reading and writing across the curriculum, using technology as a tool to enhance learning.

EDU 7334. Using Socratic Seminar to Improve Classroom Discussion. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
Recommended for educators and designed to help students foster dialectic relationships by participating in Socratic Seminars. Teachers will learn the principles of Socratic Seminar, the types of questions facilitators ask during these seminars, and will learn and practice techniques to engage all students in the discussion. In the end, teachers will know how to incorporate Socratic Seminars in their curricula to help students better understand the subject matter. Purchase text prior to class. 2.0 CEUs.

EDU 7341. Strategies for Struggling Readers II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
New - Part two of our Strategies for Struggling Readers, with a greater focus on current reading techniques and more creative classroom activities. Purchase text in CPCC bookstore. 2.0 CEUs.

EDU 7343. Elementary Social Studies. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
New-This course will demonstrate teaching strategies for Elementary Social Studies K-4. Topic areas include: culture and diversity, global historic perspectives, geographic communities, global connections, and North Carolina geography and history. Participants will develop lesson plans and activities aligned with North Carolina Standard Course of Study K-4. No text required, purchase materials in class. 2.0 CEUs.

EDU 7344. Understanding The Learner. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Course addresses physical, emotional, and cognitive development from early childhood through late adolescence. Textbook required. 3.0 CEUs.

EDU 7345. Teaching Creative Math, Grades 6-12. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will explore creative Mathematical Thinking and Learning. Topic areas include: looking at math through the students eyes, effective teaching strategies to assure all students are successful in math and creative ideas to reach reluctant learners. This class is intended for instructors who teach grades 6-12.

EDU 7346. Elementary Science Made Easy K-4. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New-This course will demonstrate teaching strategies for Elementary Science K-4. Topic areas include; teaching and understanding science principles, the scientific method, inquiry-centered science, and hands-on exploratory science. Participants will develop lesson plans and activities aligned with NC Standard Course of Study. No textbook required, purchase materials in class, 1.5 CEUs.
EDU 7347. Intermediate Writing for Grades 3-5. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
New-Learn practical and effective strategies to support writing instruction for grades 3-5. Explore the influence of instructional language on teaching writing, from specific materials to fine teaching points. Learn how writing can be used as a tool for inquiry across the curriculum - in content areas as well as in Literature. Purchase text prior to class, 1.5 CEUs.

EDU 7349. Character Education in the Classroom. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Topic areas include: history and theory of integrating character education across the curriculum in any grade level, and review of current best practices for classroom implementation. 10 contact hours = 1 CEU.

EDU 7350. Super Teaching Methods. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Methods for developing effective lesson plans that incorporate learning styles, curriculum integration, and differentiating instruction are explored and shared. Learn to create a stimulating classroom environment. No textbook required. 3.0 CEUs.

EDU 7351. GAMES - Group Applying Meaningful Engaging Skills. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Natural learning develops through using games in classrooms. Games provide a foundation for developing social skills, enhancing academics, increasing attention, motor skills and emotional skills. Participants will experience numerous games and evaluate practical application and modifications needed for implementation in their classroom. Purchase materials in class. 2.0 CEUs.

EDU 7352. Captivate, Activate and Energize Students. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore research-based classroom strategies to arouse curiosity, promote participation, facilitate transitions, boost confidence and enhance understanding and retention. Participants will discuss and actively engage in more than 50 activities.

EDU 7353. Reading in Elementary Classrooms. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Elementary reading presents successful approaches for teaching elementary reading across the curriculum. Topic areas include: phonics, comprehension skills, vocabulary building and reading for pleasure, as well as approaches to addressing reading difficulties. Participants leave with a wealth of knowledge and an action plan they can use in their classroom. 10 contact hours = 1 CEU.

EDU 7360. Effective Teacher Assistants. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will acquaint teachers, teacher assistants and support staff with effective teacher techniques. Topic areas include characteristics of effective teachers, classroom management, teaching for lesson mastery, child development and addressing the needs of exceptional children. Activities, videos and practical applications will be provided and suggestions for usage in any classroom. Purchase text prior to class, 3.0 CEUs.

EDU 7370. Reaching and Teaching Teenage Students. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is recommended for teachers, counselors, and families of adolescence students. Together we will take a journey into the heart of American adolescence. Topic areas include the physical, cognitive, moral and social development of adolescence. Textbook required. 3.0 CEUs.

EDU 7380. Integrating Art, Health and PE in Elementary Education. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Developed in conjunction with Blumenthal Performing Arts Center's Education Institute, this course models theory and applications for integrating Art, Health, and PE in elementary education classrooms. Participants will develop lesson plans and activities aligned with NC Standard Course of Study. No textbook required, 3.0 CEUs.

EDU 7381. Work Based Learning Organizations. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
New-This course addresses issues in work-based learning programs, such as developing integrated academic and vocational curricula and supervising and evaluating students’ work-based learning experiences. No text required, 3.0 CEUs.

EDU 7390. The Basics of Computers and Microsoft Office for Educators. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Basic components of Microsoft Office 2007, Word, Excel, and PowerPoint with practical applications for classroom use are introduced. Personal software required: Microsoft Word, Excel, and PowerPoint (Microsoft Office 2007). 10 contact hours = 1 CEU.

EDU 7391. Preparing for the Praxis I Test. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review pre-professional skills in reading, writing, and mathematics in preparation for the Praxis I exam. 10 contact hours = 1 CEU.

EDU 7392. PRAXIS II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A ten hour comprehensive review of information on the PRAXIS II Test for Elementary Education.

EDU 7393. Integrating Technology Into the Classroom. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will explore practical and efficient ways to integrate technology resources and technology base methods into everyday curriculum-specific practices. This class will present the fundamentals of computers and educational technology in an easy-to-understand format. 10 contact hours = 1 CEU.

EDU 7394. Vocabulary Strategies for Content. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This online course will support regular classroom teachers, reading teachers and literacy facilitators. Participants will explore vocabulary strategies and techniques that every teacher can use to meet the academic needs of the students in their schools and classrooms. Teachers will use text as a guideline for online participation. 10 contact hours = 1 CEU.

EDU 7395. Discipline with Dignity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on promoting student responsibility through social development rather than coercing students into making constructive changes in their behavior. Marvin Marshall’s "Discipline Without Stress? Punishments or Rewards" details theories behind the importance of reducing irresponsible behavior by viewing misbehavior as an academic difficulty and an opportunity to teach and learn. This approach creates a classroom in which students feel safe, enjoy learning and care for each other.
**EDU 7396. Balanced Literacy Overview. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**

Teachers will learn the framework behind and the goals of Balanced Literacy. During the class teachers will focus on the Big Five of Literacy (phonemic awareness, phonics, vocabulary, fluency, and comprehension) and their implementation in the classroom. Teachers will receive an overview of some of the balanced literacy components which may include reading aloud, shared reading, guided reading, independent reading, shared writing, interactive writing, guided writing or writing workshop and independent writing.

**EDU 7397. Student Engagement Techniques. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0**

Would you like to gain a better understanding of the distinctions between student engagement, motivation and active learning? As a teacher, how do you strive to reach and maintain engagement and motivation levels that lead to successful learning experiences for all students? Join us to explore techniques and challenges for engagement.

**EDU 7399. 99 Instructional Strategies. 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0**

New- Participate in over 99 instructional strategies, applicable for teaching any subject, any grade. Strategies will cover areas of introducing a lesson, student mastery, culminating activities and assessment. This course is designed around best practices from Marzano S.E.R.V.E, Gardner and other sources. Purchase materials in class, 2.0 CEUs.

**EDU 7400. Steps to Success in an Online Course. 0.0 Hours.**

Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0

Take an online course with confidence. This course will access and enhance your current technology skills, allow you to experience a Blackboard online course environment, and learn proven strategies to successfully complete your online course. Topic areas include; e-learning vocabulary, navigating through and online course, virtual communication, submitting assignments, online assessments, time management, exposure to several online learning environments, and general characteristics common to most online environments. This is a web enhanced class, email and internet access required.

**EDU 7401. Key Train - Work Keys. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

This is an open lab with software available for training to assist paraprofessionals in meeting quality standards required for the classroom. The Computer Based Instruction provides hours of practice before the work-keys test is administered.

**EDU 7411. Leadership Challenges. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0**

Increase your own leadership effectiveness and strengthen relationships with students, parents and colleagues. This comprehensive course covers five key leadership skills: encouraging, enabling and empowering others, challenging the process, and modeling the way. The format is interactive; you’ll evaluate your current leadership skills, discuss leadership challenges, and complete a reflective application assignment in the context of your organization.

**EDU 7412. Communication. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

For leaders, good communication is imperative. This course provides practical suggestions and application scenarios on ways to enhance your speaking, writing and interpersonal skills. Topic areas include; oral and written communication, the art of listening, presentations and mentoring. All participants complete a reflective application assignment in the context of their organization. This course blends classroom instruction with required 5 hours on-line assignments. Internet access and an email account are required. Purchase text books prior to class. 1.5 CEUs.

**EDU 7413. Project Management. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

With accelerated schedules driving most leaders today, project management is a necessary tool. This course emphasizes how to plan and manage projects, how to keep control of priorities and deadlines, and how to establish time management skills for you and your staff. You’ll learn the basic skills of how to create a plan, delegate and implement it, monitor the progress and deliver as anticipated. All participants complete a reflective application assignment in the context of their organization. This course blends classroom instruction with required 5 hours on-line assignments. Internet access and an email account are required. Purchase materials in class. 10 contact hours = 1 CEU.

**EDU 7414. Personnel. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

Building and maintaining positive employee relationships are important in achieving organizational goals. This course emphasizes resolving conflict, creating positive cultures, facilitating discussions, dealing with performance issues, building teams, and understanding legal aspects. All participants complete a reflective application assignment in the context of their organization. This course blends classroom instruction with required 5 on-line assignments. Internet access and an email account are required. Purchase text books prior to class. 1.5 CEUs.

**EDU 7415. Diversity. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

This course assists the participant in analyzing issues related to our multicultural community. Participants will identify, analyze and work toward an understanding of the possible solutions associated with serving in an administrative capacity in a diverse workplace, school, etc. This course is a hybrid course, email and internet access required. 1.5 CEU’s.

**EDU 7416. Community Relations. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0**

This course assists the participant in developing the capacity to facilitate effective meetings, build community alliances and create productive relationships with professional organizations in order to maintain productive relationships. This course is a hybrid course, email and internet access required. 1.5 CEU’s.

**EDU 7417. Conflict Resolution for Administrators. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0**

This course assists administrators in learning how to diffuse escalation situations, reduce conflict between staff members, parents and students. Topics will include conflict management styles, hints on dealing with difficult people and decreasing conflict school-wide.
EDU 7418. Special Education Law for Administrators. 0.0 Hours.
Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
This course assists administrators who are working to better understand
the needs of those with disabilities. Special Education issues and laws
will comprise the bulk of the course discussion. This course will help
administrators keep current on issues of law and compliance within the
ever-changing setting of students with disabilities. The course will add
an emphasis on appropriate discipline practices with special education
students. See www.cpcctraining.org/teacher for text information.

EDU 8000. Conflict, Bullies, and Just Plain Difficult Students. 0.0
Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help teachers and classroom assistants learn to be more
effective with all students. The course will focus on the role of teachers
in dealing with difficult students, those students who challenge authority,
and those who offer great challenge to the teaching environment. By
understanding the issues surrounding these students, strategies can be
developed for effectively working with them. Purchase book before class
begins.

EDU 8023. Learning Disabilities and ADHD. 0.0 Hours. Class-80.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will offer an introductory perspective on specific learning
disabilities and attention deficit disorders. The class will explore the
definition of a learning disability, the characteristics of ADHD, various
areas of academic deficit and difficulty, and the lifelong nature of learning
disabilities and attention deficit disorders. A brief overview of strategies
for academic support and success will be offered. This introductory-level
course is appropriate for educators and professionals instructing students
in regular classrooms, persons supporting students in tutorial situations
and other situations in which learning struggles are evident. "10 contact
hours = 1 CEU".

EDU 8024. Introduction to Special Education. 0.0 Hours. Class-80.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course supports educators in the general education setting who do
not have basic understanding of disabilities, special education issues and
laws. This course will help them understand how to plan for and work
with disabled students and provide a variety of teaching strategies as
well as collaboration strategies to use with students, parents and special
education teachers. See www.cpcctraining.org/teacher for text information.
10 contact hours = 1CEU.

EDU 8121. iTeach Drive in Conference. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
Dazed? Confused? Ever wonder what your students are talking about
when they mention wiki’s, iPads, YouTube, My Space, etc? Join us for a
day seminar exploring this, and go back to school and show them you
are really cool! We will discuss "millennium" students, what they expect
and how to meet their educational needs. As a bonus, we will provide a
special presentation that showcases quick tips and tricks using Microsoft

EDU 8122. Character Education With Kohlberg and Piaget. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course compares and contrasts the theories of Kohlberg and Piaget
as they relate to character education.

EDU 8351. GAMES Groups Applying Meaningful Engaging Skills. 0.0
Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Natural learning develops through using games in classrooms. Games
provide a foundation for developing social skills, enhancing academics,
increasing attention, motor skills and emotional skills. Participants will
experience numerous games and evaluate practical application and
modifications need for implementation in their classroom. Purchase
materials in class.

EDU 8500. Teaching the Language Arts: Content And Strategies. 0.0
Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an opportunity for elementary and middle grade
teachers to review and to extend their content knowledge of each of
the six language areas that inform language arts instruction. Teachers
will design and assess instructional models that represent effective
strategies for integration within the language arts curriculum and across
other content areas. Course content will also include the analysis of
teacher-generated case studies and a survey of current research-based
recommendations for integrative strategies that address the learning
needs and styles of all students in culturally and linguistically diverse
classrooms. Course content and objectives are aligned with national and
state professional standards and guidelines for language arts and literacy
instruction.

EDU 8501. Teaching Informational Texts: Grades K-6. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The focus of this course includes a survey of both current research
and effective instructional practice in the area of content literacy for
students in grades K-6. Participants will analyze, plan and evaluate a
variety of reading and writing strategies that build on the relationship
between a child’s linguistic development and proficiency in content
reading and writing. Course content also includes a review of classroom
teaching vignettes that illustrate instructional modes such as practices for
vocabulary development, inquiry and cueing strategies, student-generated
study guides and content organization strategies. Course content is
aligned with the North Carolina Standard Course of Study, International
Reading Association and the National Council of Teachers of English.

0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The focus of this course is to discuss and assess an integrated model
for teaching science, math and technology in a cooperative learning
environment. A crucial course component is the concept of the learner
as actively connecting content knowledge and engaging in problem-
solving across subject areas. Course content also includes a review and
selection of technology resources that contribute to the development of
critical, creative thinking strategies in science and math. Participants will
have the opportunity to assess current classroom practice and to design
integrated activities and curriculum materials that are aligned with the
National Council of Teachers of Mathematics Standards and the National
Science Education Standards.

EDU 8503. Creativity and Learning: Methods and Techniques for
Integrating the Arts in Curriculum. 0.0 Hours. Class-440.0. Clinical-0.0.
Lab-0.0. Work-0.0
This course explores the role of the arts in meaningful learning from pre-
school to high school. Topic areas include an overview of the history of
arts in education, connections between the arts and learning styles and
methods and strategies for integrated drama, art, dance and music into the
curriculum and a review of successful programs.

Electric Line Safety (ELS)

495
Corporate and Continuing Education Courses

Electrical (ELC)

ELC 7007. Troubleshooting and Safety - Lead Free Soldering. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will teach general maintenance personnel basic troubleshooting procedures as well as safety practices to follow when working with electrically powered equipment. Students will practice troubleshooting following specific services in a practical setting and utilizing hands-on training aids.

ELC 7014. Basic Electricity and Electronics. 0.0 Hours. Class-55.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed as an introductory course, this course is intended to provide an overview of the principles of electricity and electronics, components, circuits, and instruments. Topics include static electricity, Ohm's law, DC circuits, magnetism, elementary concepts of alternating current, indicators, transformers, capacitors, and electronic components.

ELC 7101. Industrial Communication and Control Networks I. 0.0 Hours. Class-336.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the use of industrial network and fieldbus technologies currently used in industry and focuses on the use of Foundation Fieldbus. Upon completion, students should understand the terminology and advantages of Foundation Fieldbus systems used in industry.

ELC 7102. Industrial Communication and Control Networks II. 0.0 Hours. Class-336.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the use of industrial network and fieldbus technologies currently used in industry and focuses on the use of DeviceNet, ASI and HART. Upon completion, students should understand the terminology and advantages of DeviceNet, ASI, and HART systems used in industry.

ELC 7103. Industrial Communication and Control Networks III. 0.0 Hours. Class-336.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the use of industrial and fieldbus technologies currently used in industry and focuses on the use of PROFIBUS and Modbus. Upon completion, students should understand the terminology and advantages of PROFIBUS and Modbus systems used in industry.

ELC 7104. Industrial Communication and Control Networks IV. 0.0 Hours. Class-336.0. Clinical-0.0. Lab-0.0. Work-0.0
This course surveys the use of industrial and fieldbus technologies currently used in industry and focuses on the use of Industrial Ethernet, Interbus, P-Net and RS422/485. Upon completion, students should understand the terminology and advantages of Industrial Ethernet, Interbus, P-Net and RS422/485 systems used in industry.

ELC 7400. Introduction to Plc. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

Engineering (EGR)

EGR 7000. Introductions to Robotics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an overview of fundamentals of robotics. Topics include basic goal setting, ethics, basic safety, the engineering method and design process, written and oral communication, interpersonal and team building skills. Upon completion, students should be able to demonstrate understanding of the fundamentals of robotics by designing, constructing and testing a functional robot. In addition, students should be able to work in a multi-discipline team for a common goal.

EGR 7001. Basic Robotics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an overview of the fundamentals of robotics. Topics include basic goal setting, ethics, basic safety, the engineering method and design process for basic design, written and oral communication, interpersonal and team building skills. Upon completion, students should be able to demonstrate a basic understanding of the fundamentals of robotics by designing, constructing and testing a functional robot. In addition, students should be able to work in a multi-discipline team for a common goal.

EGR 7010. Engineering Summer Camp. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The camp will introduce students to science and engineering concepts and principles. The camp will provide participants a clear understanding of how math, science and engineering converge and complement one another. Through "contextual learning" activities and projects participants will build, analyze, and test their own machines such as a quadcopter or 3D printer while learning fundamental concepts of electrical, mechanical, and computer engineering disciplines. This will instill confidence in students that their creativity can be used to develop useful products.

EGR 7011. Engineering Summer Camp: Build Your Own 3D Printer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The camp will introduce students to science and engineering concepts and principles. The camp will provide participants a clear understanding of how math, science and engineering converge and complement one another. Through "contextual learning" activities and projects participants will build, analyze, and test their own machines such as a quadcopter or 3D printer while learning fundamental concepts of electrical, mechanical, and computer engineering disciplines. This will instill confidence in students that their creativity can be used to develop useful products.

Emergency Preparedness (EPT)

EPT 7300. Incident Command System 300. 0.0 Hours. Class-27.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides training on and resources for personnel who require advanced application of the Incident Command System (ICS). The course expands upon information covered in the ICS -100 and ICS-200 courses.

EPT 7400. Incident Command System 400. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides training for personnel who require advanced application of the Incident Command System (ICS). The course expands upon information covered in the ICS -100, ICS -200 and ICS-300 courses.

Energy (EGY)

Electronics (ELN)

ELN 7104. Troubleshooting Programmable Logic Controllers. 0.0 Hours. Class-64.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide students with an introduction to the different series of Programmable Logic Controllers to include the following: learning programming functions, program preparation, saving programs, loading programs, and hands-on programming. Students will also learn to read ladder logic and how to install and troubleshoot the PLC's.

Emergency Medical Science (EMS)
EGR 7020. Workshop: Build Your Own Quadcopter. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Construct your very own autonomous quadcopter! The workshop will introduce students to the world of quadcopters. Students work on their own quadcopters in a friendly, cooperative, and open environment guided by the instructor. Whether you are taking your first steps into this world or have been flying for years. By the end of the workshop you can have your quadcopter built, calibrated and ready to fly. Welcome to the future come build and fly.

EGR 7022. Workshop: Build Your Own 3D Printer. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Construct your very own 3D Printer! The workshop will introduce students to the world of 3D Printers. Students work their own 3D Printers in a friendly, cooperative, and open environment guided by the instructor. Whether you are taking your first steps into this world or have been building with 3D printers for years. Now take steps to build your own. By the end of the workshop you can have your 3D Printer built, calibrated and ready to 3D print your own creations and/or download others. Welcome to the future come build and print.

English (ENG)

ENG 7002. Business English. 0.0 Hours. Class-75.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an individualized, self-paced course designed to meet the needs of any student who lacks the background to complete college level transfer/technical/trade English.

ENG 7090. Composition Strategies - Abridged. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Fast Track ENG 7090 is a fast-paced, intensive abridgement of Composition Strategies in a standard instructor-student format. The prerequisite for the course is successful completion of ENG 080 or the appropriate placement-test score. After successful completion of the course, which includes a retaking of the Sentence-Skills placement test, a student may advance to ENG 111, provided that the additional prerequisite of RED 090 with a grade of "C" or higher or the appropriate Reading Comprehension placement-test score has been met.
Prerequisites: Complete one of the following options:
• Take ENG 080
• Take ENG 085 ENG 085A

ENG 7125. Breaking into Sitcom Writing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn from a veteran TV comedy writer how to write professional sitcom scripts and how to break into show business. In this six-week online course, you'll discover the artistic and technical considerations that go into making a great sitcom script. You'll master the art of creating concise, sparkling dialogue and telling your story completely through jokes. You'll get easy-to-follow instructions for using sitcom characters to their fullest, creating powerful storylines, and selling your ideas to existing shows. You'll pick up tricks of the trade and learn to avoid mistakes that mark you as an amateur. And you'll come to understand what happens to your script once you sell it, what happens in a sitcom writers' room, and what happens during the rewrite and punch-up process. Discover from an insider what it takes to get a job in this expanding and lucrative field! Offered in partnership with ed2go.

English As a Foreign Language (EFL)

EFL 8024. Academic ESL Communication I. 0.0 Hours. Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in integrated academic and professional language skills. Upon completion of the course, students should be able to complete specific listening, discussion, reading, and writing tasks at an intermediate level.

EFL 8025. Academic ESL Communication II. 0.0 Hours. Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in integrated academic and professional language skills. Upon completion of the course, students should be able to complete specific listening, discussion, reading, and writing tasks at an intermediate level.

EFL 8030. Practical English for Business Situations I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in academic and professional language for non-native speakers of English. Emphasis is placed on development of integrated language use for English situations.

EFL 8031. Practical English for Business Situations II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in academic and professional language for non-native speakers of English. Emphasis is placed on development of integrated language use for English situations.

EFL 8050. TOEFL Preparation I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in academic skills for non-native speakers of English. Emphasis is placed on specific reading, writing, listening, and speaking skills needed for the TOEFL.

EFL 8051. TOEFL Preparation II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide instruction in academic skills for non-native speakers of English. Emphasis is placed on specific reading, writing, listening, and speaking skills needed for the TOEFL.

EFL 8055. Academic ESL Grammar for Communication I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides non-native speakers of English with a variety of basic grammatical concepts that enrich academic communication.

EFL 8056. Academic ESL Grammar for Communication II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides high-intermediate non-native speakers of English with a knowledge of grammatical structures that improve academic communication.

English As a Second Language (ESL)

ESL 7000. English for Internationals in the Workplace. 0.0 Hours. Class-450.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is for those who have a high level of english language skills in listening/speaking, reading/writing and grammar. The course will emphasize conversational skills in formal/informal settings, pronunciation and accent reduction, and the use of conditional tenses in English.
Corporate and Continuing Education Courses

ESL 7001. Conversations in English III. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This CCE/Adult ESL English language course is for adults who want to improve their mastery of grammar while communicating with ease on general topics. Students will improve their speaking and listening skills for various purposes such as discussions, accessing media and interacting in various social settings.

ESL 7002. Conversations in English IV. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a continuation of Conversations in English III. This CCE/Adult ESL English language courses is for adults who want to improve their mastery of grammar while communicating with ease on general topics. Students will improve their speaking and listening skills for various purposes such as discussions, accessing media, and interacting in various social situations. The book for Conversations in English III will also be used in this class.

ESL 7003. Conversations in English V. 0.0 Hours. Class-375.0. Clinical-0.0. Lab-0.0. Work-0.0
This CCE/Adult ESL English language course is for adults who enjoy discussing opposing sides of an issue. Topics that interest students and promote discussion, as well as topic-specific vocabulary provide a fun and relaxed learning environment. Brief reading and comprehension activities are added to the classroom instructional time. Students develop discussion skills such as agreeing, disagreeing, asking for information, giving information, and adding their own opinion. Students will also learn common idioms or sayings related to each topic.

ESL 7004. Conversations in English VI. 0.0 Hours. Class-375.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a continuation of Conversations in English V. This CCE/Adult ESL English language course is for adults who enjoy discussing opposing sides of an issue. Topics that interest students and promote discussion, as well as topic-specific vocabulary, provide a fun and relaxed learning environment. Brief reading and comprehension activities are added to the classroom instructional time. Students develop discussion skills such as agreeing, disagreeing, asking for information, giving information, and adding their own opinion. The book for Conversations in English V will be used in this course.

ESL 7005. American English Pronunciation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
English-language learners will target areas of their speech and comprehension to speak clearly and with efficiency. Understand native-English speakers better, practice conversational skills and improve interactions with others at work, at school and in real-life situations.

ESL 7006. Preparing for the U.S. Citizenship Test. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Eligible permanent U.S. residents will prepare for the new U.S. Naturalization Test. Learn the general requirements for Naturalization. Improve upon the four principal components of the new naturalization test. Write English study vocabulary associated with the naturalization test. Speak English-practice how to verbalize your interactions during the naturalization test. Study U.S. history and government related to details on the naturalization test. Receive an evaluation of listening/speaking skills in the context of a simulated USCIS interview.

ESL 7007. Grammar Review 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Grammar Review 1 is designed to assist English language learners target key areas of grammar development.

ESL 7008. Grammar Review 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Grammar 2 is designed to assist English language learners target key areas of grammar development.

ESL 7010. English As a Second Language Grammar and Listening. 0.0 Hours. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 7011. English for Specific Purposes: Business and Technical English Course. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an English for Specific Purposes contract training course designed specifically for employees of a company. The course will include instruction on technical English-language needed specifically for the workplace, and general language skills-speaking, listening, reading and writing, as needed for the individual learners. There will also be a component of instruction in the course included to enhance learners’ cultural competence in the workplace and beyond. A needs assessment is first conducted to create customized training for individuals or small groups. After the needs assessment, a needs analysis is conducted to create a learner-centered approach to target students’ specific needs.

ESL 8001. English for Special Purposes a. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8002. English for Special Purposes B. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8003. English for Special Purposes C. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8004. English for Special Purposes D. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8005. English for Special Purposes e. 0.0 Hours. Class-26.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8006. Creative Writing for Internationals. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0

ESL 8007. Conversations in English Level I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This first level course of Corporate and Continuing Education/Adult ESL English language course is for adults who already have a basic knowledge of English but need to reinforce listening skills by being engaged in a variety of listening contexts, such as mini-lectures, broadcasts, public announcements and voicemail. Students will listen for the main ideas, details, grammar and vocabulary. Key listening strategies will also be taught in this course. Speaking activities such as discussions, role play and interviews accompany the listening activities. Students will be engaged in group activities to encourage independent speaking skills that can be used outside of the classroom.
ESL 8008. Conversations in English Level II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a continuation of Conversations in English I. This CCE/Adult ESL English language course is for adults who already have a basic knowledge of English, but need to reinforce listening skills by being engaged in a variety of listening contexts, such as mini-lectures, broadcasts, public announcements, and voicemail. Students will listen for the main ideas, details, grammar and vocabulary. Key listening strategies will also be taught in this course. Speaking activities such as discussions, role plays, and interviews accompany the listening activities. Students will be engaged in group activities to encourage independent speaking skills that can be used outside of the classroom. The book for Conversations in English I will also be used in this class.

ESL 8010. English As a Second Language for Desktop Publishing. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

Environmental Science (ENV)

ENV 7100. What's Your Carbon Footprint?. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
As the scientific community now agrees that global warming is taking place, the question arises as to what impact humans are having on this environmental change and the increase of CO2 levels in the earth's atmosphere. Our "carbon footprint" is a measurable indication of our personal impact. The average consumer today may be overwhelmed with information but unsure as to how their personal choices contribute to the equation. This class will offer general discussions on CO2, the human factor, and how our daily choices directly and indirectly affect the environment.

ENV 7101. Urban Ecosystems. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Creating biodiversity begins with one yard - yours. Participants will learn how to provide the four elements of a wildlife habitat, food, water, shelter and places to raise young, using a variety of manmade and natural products. Topics covered include sustainable gardening, planting with native plants, soil and water stewardship, reducing lawn size and reducing chemical usage.

ENV 7102. Sustainable Housing and Building Green: What Agents Should Know. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Sustainable Housing and Building Green teaches students how to understand sustainability in homes, to recognize green features, to give clients information on green mortgages and to understand cost savings in tax breaks, rebates and incentives. This course is approved by the North Carolina Real Estate Commission (NCREC) for four hours of CE credit.

ENV 7103. Greening the Home Step-By-Step on a Budget. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Greening the Home teaches the student how to make cost effective, eco-friendly choices to improve the quality of the home environment. Students will be able to create a step-by-step plan within a budget for continuing this greening process in their own homes.

ENV 7104. Consumer's Guide to Building a Green Home. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
There are many things you can do as an individual and as a family, when planning a new Green home, which will make an impact in reducing your new homes carbon footprint. The actual construction of homes tends to require a lot of energy and resources. By pre-planning the necessary steps in the process, typically at minimal to no cost beginning in the design stage, a homeowner can gain significant benefits to the 3 P's: People, Planet and Pocketbook. Start by getting your family on board with the idea, then your design and building team and the transition will be a lot easier and much more fun.

ENV 7105. Worms In Your Garden: Home Vermicomposting. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will learn the huge benefits of composting with worms over regular garden composting. This method can be done indoors in a small apartment, condo, or where outdoor composting is not possible. Participants will each build a simple low maintenance worm composting bin that can be taken home and, with kitchen scraps and paper, used to produce free, earth friendly and superior plant fertilizer for home and garden use. Instructions will be given in the care and continuance of the bin and worms.
ENV 7106. Ways to Live Greener at Home. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will learn about energy efficiency and effective ways to lessen impact on our environment, beginning with our own homes. We will address recycling beyond paper and plastic, saving energy at home through new technologies, ways to remodel homes to save energy and money, and what to look for in a contractor. We will discuss tax incentives available, different organizations that promote green living and building such as the LEED rating system, Energy-Star and others. Discussion will include what we need to do in our communities to update neighborhood association by-laws to allow some of these more efficient systems.

ENV 7107. Home Energy Audits. 0.0 Hours. Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
You can easily conduct a home energy audit yourself. With a simple but diligent walk-through, you can spot many problems in any type of house. This class will teach you how and give you the tools you need.

ENV 7108. Endangered Species of the Carolinas. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, students will learn the fundamentals of the US Endangered Species Act of 1973, The North Carolina Endangered Species Act of 1976, and the South Carolina Nongame and Endangered Species Conservation Act of 1974. Students will explore the different ecosystems that allowed species to adapt to their environments. Topics include observation and identification of threatened and endangered species, along with coordination with local, state and federal agencies. Upon completion, students should be able to perform an endangered species survey.

ENV 7110. Preparing for the Green Workforce. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides the information and strategies for people looking for a new career in the green economy. This includes alternative energy, skilled trades, environmental health, sustainability professionals, engineering and much more. Topics include career choices, professional goals, CPCC Sustainable Technologies Degree, interest assessment. Upon completion, students should be able to clearly state their personal, academic, and professional goals and have a feasible plan of action to achieve those goals.

ENV 7135. Environmental Bio Diesel Production. 0.0 Hours. Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
ENV 7135 provides a survey of the bio fuel industry and will cover biofuel production. This class is extremely relevant to students who want to make their own fuel, including the basic chemistry and time spent in the lab making and testing fuel. This class focuses primarily on biodiesel and straight vegetable oil use with a survey of other biofuels.

ENV 7200. Solar Photovoltaics for the New Clean Energy Economy. 0.0 Hours. Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completion of this course the students shall understand the detailed functionality of Photovoltaic system components, and all common solar systems from straight water pumping to stand alone battery based systems, and grid tie PV with and without batteries. Students will be able to design and size these systems. They will see what is involved with interconnection to the utility. This course prepares students to enter the workforce as a valuable resource to a company.

ENV 7201. Consumer’s Guide to Solar Power for the Home. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is for the homeowner considering an investment in a solar electric system who wants to be well informed. You'll learn a lot about this topic and we'll help you understand the basics of how a solar electric system works, how to establish how many solar panels you'll need in your array and the approximate costs. We will discuss: photovoltaic (solar electric) technology, energy storage, energy efficiency, site requirements for PV, installation considerations, PV system sizing, PV system costs, rebates and tax incentives and working with an installer.

ENV 8000. Common Sense Buildings. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Common Sense Buildings is a one day workshop is an introduction to the key components of practical buildings and how those are best integrated into a holistic approach to construction. The course will cover the basic science behind building construction and performance. We will discuss effective building assemblies and sustainable green building best practices. Participants receive a certificate of completion at the end of the program that states professional licensure and eligibility requirements for the LEED Green Associate exam.

ENV 8001. Selling Green Building without Greenwashing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This half day workshop will share marketing strategies with its participants and assist them in developing their own strategies. Participants will learn the appropriate terminology and use of information related to the LEED rating system and green building in general. The course will explore modern forms of marketing such as social networking. Participants receive a certificate of completion at the end of the program that states professional licensure and eligibility requirements for the LEED Green Associate exam.

ENV 8002. USGBC Core Concepts and Strategies. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is intended for anyone who wants more than a basic understanding of LEED, including those with a stake in their company’s or community’s building practices, those directly involved in green building projects, and those pursuing GBCI’s LEED Green Associate credential. The workshop provides essential knowledge of sustainable building concepts that are fundamental to all LEED Rating Systems. It begins with an introduction to the benefits and integrative approach to green building, and a brief background on the U.S. Green Building Council and LEED, including basics of the building certification process. The core of the workshop presents LEED intents and concepts at the credit category level, across building types and rating systems, touching on strategies, synergies, and specific examples that are reinforced by real project cases. Key LEED metrics and LEED referenced standards are addressed throughout the workshop. Interactive activities within the course keep you engaged and reinforce what you’ve learned.

ENV 8003. Green Associate Study Group. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed for candidates seeking the USGBC Green Associate credential, this facilitated study group builds on core green building and LEED knowledge as outlined in the Green Associate Candidate Handbook. Instructor will facilitate preparation through engaged group and directed individual study. Participants receive a certificate of completion at the end of the program.
ENV 8004. Physics of Green Building. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This one day workshop covers the science behind building and building performance. Participants will learn the concepts and interactions between air, moisture and heat transfer in buildings, all critical in the proper functionality of homes. Participants receive certificate of completion at the end of the program.

ENV 8005. Residential Energy Efficiency Methods. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This one day workshop is an introduction to the key components of energy efficient buildings and how they are best integrated. Participants receive a certificate of completion at the end of the program.

ENV 8006. Advanced Sustainable Building: Residential. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This one day workshop is intended to convey practical, effective green building strategies. Participants will learn green building details and strategies that emphasize durability, energy efficiency and other green building principles. Participants will learn how to design or build better, greener buildings. Participants receive a certificate of completion at the end of the program.

ENV 8007. Green House Design and Construction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is intended for professionals who are familiar with the basic concepts of the LEED for New Construction and Major Renovations Rating System, but new to implementing it on projects or looking to brush up on implementation best practices. It is appropriate for new LEED APs, as well as those pursuing GBCI’s LEED AP Building Design + Construction credential.

ENV 8008. LEED AP for Homes Study Group. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed for candidates seeking the USGBC LEED AP Homes credential, this facilitated study group builds on core green building and LEED knowledge as outlined in the LEED AP Homes Candidate Handbook. Instructor will facilitate preparation through engaged group and directed individual study. Participants receive a certificate of completion at the end of the program.

ENV 8500. Building Performance Institute (BPI) Building Analyst and Envelope Professional Combination Training and Certification. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course combines BPI's Building Analyst and the advanced Envelope Professional training and certification in a single week. Building Analyst is an entry certification for becoming an energy auditor or trade professional, while Envelope Professional is a specialized certification for measuring shell performance and offering solutions. These two designations can qualify your organization for BPI Company Accreditation upon application to the Institute. Ability to perform basic math and geometry calculations (a math and geometry primer is available upon request). Experience in construction trades is helpful. Instructor recommends purchasing and reading Residential Energy by John Krigger and Chris Dorsi prior to class. Students are required to register for their field exams directly with Green Collar Crew, Inc. prior to class. Exams are scheduled on a first-registered first-served basis. Email Instructor at info@greencollarcrewwus.com for more information.

ENV 8700. Central Carolinas Master Naturalist Certification Program. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Central Carolinas Master Naturalist Program is a certification intended for lifelong learners, biology and science graduates, retirees, environmental science educators, advanced high school and home school students, as well as science teachers. This certification training course includes basic classroom and field instruction in natural history, conservation and management, teaching and research skills led by local experts.

ENV 8701. National Wildlife Foundation Habitat Steward Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a National Wildlife Federation program which teaches the intricacies of creating wildlife habitats in backyards, schools, businesses and places of worship; soil and water conservation; legislative and environmental challenges in a specific area; native and invasive plants and their roles in the environment; and much more. You will learn a lifetime of conservation facts from a number of topic experts. This information will change the way you view the natural world and give you all the tools you need to make a real difference in your landscape and in shaping our community’s future. Graduates will be asked to donate time to a special project in Charlotte, it’s NWF Community Wildlife Habitat Certification.

ENV 8904. Wetlands Delineation with GIS. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the following: Creating & Integrating Data for Natural Resource Applications, Learning ArcGIS 9, Cartographic Design Using ArcGIS 9, and working with ArcPad 7. These applications will be used for acquiring, evaluating, creating, manipulating, and integrating data in preparation for analysis and map creation.

Expanding Industry Training (EIT)

EIT 4028. Expanding Industry Training (eit). 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7011. Lean Manufacturing. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Use a factory simulation, this class introduces participants to the basic concepts of Lean Manufacturing and the fundamental components required to implement lean manufacturing on the plant floor.

EIT 7012. Microsoft Office Word 2003 and Excel 2003: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Word processing is the use of computers to create, revise, and save documents for printing and future retrieval. This course is the first in a series of three Microsoft Office Word 2003 courses. It will provide you with the basic concepts required to produce basic business documents. You have basic computer skills such as using a mouse, navigating through windows, and surfing the Internet. You have also used paper-based systems to store data that you run calculations on. You now want to migrate that data to an electronic format. In this course, you will use Microsoft Office Excel 2003 to manage, edit, and print data.

EIT 7013. Microsoft Office Excel 2003: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You have basic computer skills such as using a mouse, navigating through windows, and surfing the Internet. You have also used paper-based systems to store data that you run calculations on. You now want to migrate that data to an electronic format. In this course, you will use Microsoft Office Excel 2003 to manage, edit, and print data.
EIT 7014. Microsoft® Office Excel 2003: Level 2. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In Microsoft Office Excel 2003: Level 1, you created, edited, formatted, and printed basic spreadsheets. You now have a need to streamline repetitive tasks and display spreadsheet data in more visually effective ways. In this course, you will use Microsoft® Excel 2003 to streamline and enhance your spreadsheets with templates, charts, graphics, and formulas.

EIT 7015. Analytical Troubleshooting. 0.0 Hours. Class-16.0.
Clinical-0.0. Lab-0.0. Work-0.0

EIT 7016. Microsoft® Office Excel 2003: Level 3. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You have used Microsoft® Office Excel 2003 to perform tasks such as running calculations on data and sorting and filtering numeric data. You would now like to automate some common tasks, apply advanced analysis techniques to more complex data sets, collaborate on worksheets with others, and share Excel data with other applications. In this course, you will do all of these things.

EIT 7017. Cnc Programming - Milling Machine. 0.0 Hours. Class-32.0.
Clinical-0.0. Lab-0.0. Work-0.0

EIT 7018. Fundamentals of Programmable Controller Systems. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as an introduction to programmable controller systems. You will learn what programmable controller systems are, how they work, and how they can be used to control various processes and machines. In addition, you will receive a thorough introduction to RSLogix 5 or RSLogix 500 software and learn how to interpret simple ladder logic. The course is taught in a hands-on environment, featuring PLC-5 or SLC 500 systems workstations. Where applicable, demonstrations are included to facilitate the hands-on exercises that follow each lesson.

EIT 7019. Building Bridges India. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Hewitt’s global workforce requires us to reach out beyond our standard work environments to other Hewitt associates in other Hewitt locations globally to service the clients that depend on Hewitt for excellent HR services. Being aware of cross-cultural competence will improve your business acumen and put you on track in helping Hewitt reach our goal of being the Best in the People Business. Associates that interface with others, and share Excel data with other applications. In this course, you will do all of these things.

EIT 7020. Blueprint Reading. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing coursework, student will be able to understand the basic principles of blueprint reading and sketching.

EIT 7021. MS Project 2003: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Microsoft Project 2003: Level 1 is the first in a series of two courses designed for individuals who will use Microsoft Office Project Professional 2003 as a tool to assist them in managing projects. The topics in this course cover the critical skills necessary to create and modify a project plan file that contains tasks, resources, and resource assignments.

EIT 7022. MS Project 2002: Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Microsoft Project 2002: Level 2 is the second course in the MS Project 2002 series. In MS Project 2002: Level 1, you used your project management skills to create a complete project plan. This course will build upon that knowledge, and give you the opportunity to work with the project plan once it has entered in the project implementation phase.

EIT 7023. Network+ Certification: Fourth Edition -A CompTIA Certification. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The CompTIA Network+ Certification course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present fundamental skills and concepts that you will use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

EIT 7024. Microsoft PowerPoint Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
As a Microsoft Office PowerPoint 2003 user familiar with the basics, you’re able to convey information clearly without much glitz. That’s okay, but you can do better—audiences expect more than the basics. In this course, you will enhance presentations with features that will transform basic presentations into those with a powerful means of communication.

EIT 7025. Series 7 Review. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A 32-hour class for those seeking employment in the Insurance/Finance Industry. This course will prepare the student to sit for the NASD Series 7 National Exam.

EIT 7026. Telephone Doctor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Telephone Doctor Customer Service Training seeks on improving the way your organization communicates with your customers.

EIT 7027. Performance Consulting. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This interactive one-day workshop is about performance consulting and how it can help you determine if people have what they require to be effective in their jobs. The tools, techniques, and case studies will enable you to determine performance deficiencies and their causes. They are designed to help you communicate to management what is needed for people to be effective. You will gain a better understanding of what performance consulting is about and the role consultants play.

EIT 7028. Catholic Health Initiative Customer Service Team Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The curriculum prepares customer service associates to effectively take a variety of calls around HR services to serve the client Catholic Health Initiative (CHI).

EIT 7029. Customer Service: We are Wachovia. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Provide a basic foundation of the customer service relationship for Wachovia by discussing Wachovia’s Brand Overview, Promise and Commitment.

EIT 7030. Customer Service: Difficult Callers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Provide a basic foundation of how a customer service representative will handle a difficult caller.

EIT 7031. PESOC H&W. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The curriculum prepares customer service associates to effectively answer calls about H&W benefits and troubleshoot participant issues.

EIT 7032. CS Defined Contribution Practice Specific. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The curriculum prepares customer service associates to effectively answer calls about Defined Contributions (not client specific) and troubleshoot participant issues.
EIT 7033. Customer Service Payroll Refresher. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Refresher training for basic Peoplesoft navigation, payroll terminology and how to read a paycheck, how to read adjustments. Year end training for all CSA's on year-end information and how to assist the callers with W2 questions and calculations.

EIT 7034. Forklift Training. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7035. Microsoft? Office Excel 2003: Level 1. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You have basic computer skills such as using a mouse, navigating through windows, and surfing the Internet. You have also used paper-based systems to store data that you run calculations on. You now want to migrate that data to an electronic format. In this course, you will use Microsoft174 Office Excel 2003 to manage, edit, and print data.

EIT 7036. Principles and Qualities of Genuine Leadership. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Genuine Leadership system provides a systematic approach to leadership development -one that builds a motivated, loyal workforce capable of reaching new levels of productivity. The system develops leaders-from executives to individual contributors-and teaches the critical skills needed to ensure success.

EIT 7037. CS Thomsom Compensation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Service Center training to handle calls related to Compensation Fundamentals and the Compensation Tool functionality.

EIT 7038. Principles of Industrial Hydraulic. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches maintenance technicians the principles of industrial hydraulics technology. Starting with practical ideas of force, area, pressure, fluid flow rate, cylinder speed, hydraulic motor speed, hydraulic power and hydraulic system heat production, student develop their understanding of how hydraulic powered and controlled machines work.

EIT 7039. PHR/SPHR Certification Preparation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of key areas in human resources management to better prepare HR professionals for the national PHR (Professional in HR) or SPHR (Senior Professional in HR) exam, administered by the HRCI (Human Resources Certificate Institute). Students receive the latest edition of the SHRM Learning System to assist in preparing for exam. The Society of Human Resources (SHRM) and HRCI are two separate organizations; however, SHRM follows the HRCI body of knowledge outline in creating the SHRM Learning System. This course will in no way guarantee or ensure success on the HRCI exam. Requirements for PHR exam are at least two years exempt-level HR generalist experience. For test information and eligibility requirements, visit www.shrm.org.

EIT 7040. Introduction to LEAN. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Using a factory simulation, this class introduces participants to the basic concepts of Lean Manufacturing and the fundamental components required to implement lean of the facility floor. Upon completion participants will understand the impact of improving processes and eliminating waste.

EIT 7041. Word Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, you will increase the complexity of your Microsoft Word documents by adding components such as customized lists, tables, charts, and graphics. You will also create personalized Microsoft Word efficiency tools.

EIT 7042. A+ Certification Prep Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
If you are getting ready for a career as an entry-level information technology (IT) professional or personal computer (PC) service technician, the CompTIA A+? Certification course is the first step in your preparation. The course will build on your existing user-level knowledge and experience with personal computer software and hardware to present fundamental skills and concepts that you will use on the job. The level 2 course focuses on the software side of computer systems. In this course, you will acquire the essential skills and information you will need to configure, troubleshoot, optimize, and perform preventative maintenance of basic personal computer operating systems.

EIT 7043. A+ Certification Prep Level 2. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
If you are getting ready for a career as an entry-level information technology (IT) professional or personal computer (PC) service technician, the CompTIA A+? Certification course is the first step in your preparation. The course will build on your existing user-level knowledge and experience with personal computer software and hardware to present fundamental skills and concepts that you will use on the job. The level 2 course focuses on the software side of computer systems. In this course, you will acquire the essential skills and information you will need to configure, troubleshoot, optimize, and perform preventative maintenance of basic personal computer operating systems.

EIT 7045. Project Management Program. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This in-depth project management course is designed to provide the skills and experience needed to successfully manage projects from initiation to completion. The certification program highlights skill areas of: targeting end objectives, project staffing, the 9 skills of successful project management, project time management, project quality management, project accounting, advanced project management tools. Project Countdown is an extremely realistic project management simulation in a "discovery" learning format. Each participant is an employee of company, called to work on a cross-functional project team, who will be analyzing information, making decisions and managing Countdown to a successful conclusion. The simulation is an intense "nine month" project, with information coming from voice mail, memos, e-mail, phone calls and from the project manager.

EIT 7046. Supervisory Training for Team Leads. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This program is designed to build awareness skills by applying and developing the principles and qualities of genuine leadership.

EIT 7047. Microsoft? Office Excel? 2007: Level 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You have basic computer skills such as using a mouse, navigating through windows, and surfing the Internet. You have also used paper-based systems to store data that you run calculations on. You now want to migrate that data to an electronic format.
**EIT 7048. Microsoft Office Outlook? 2007: Level 1. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the first in a series of three Microsoft Office Outlook 2007 courses. It will provide you with the skills you need to start sending and responding to email in Microsoft Office Outlook 2007, as well as maintaining your Calendar, scheduling meetings, and working with tasks and notes. In this course, you will compose and send email, schedule appointments and meetings, manage contact information and tasks, and use notes.

**EIT 7053. Adobe Design and Print. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Our Dominance I class is designed by our Graphic Arts Department to teach tools and tricks necessary to utilize Photoshop, Illustrator, and InDesign to its potential. The first level of our series will help you master, discover, learn and manipulate this extremely powerful and popular raster editing software. This six-day course is great for beginners and novices alike. An understanding of the Photoshop, Illustrator, and InDesign Interface and the Apple operations system is a plus but not necessary. IBM users are always welcome as the software functions the same on Mac as IBM.

**EIT 7088. First Aid/CPR/AED/Bloodborne Pathogens. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the fundamental concepts and practices of First Aid and CPR. AED and Bloodborne Pathogens, this class addresses the methods for delivering prompt and properly administered care. Topics covered include response to routine injuries typically found in the home or workplace, instruction and practice in Cardiopulmonary Resuscitation (CPR).

**EIT 7089. Fire Extinguisher Training. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Fire Extinguisher training is conducted to inform and train the students in Types of fires, Fire Triangles, Types of extinguishers, the use of fire extinguishers and the rules of fire. Upon completion of Fire Extinguisher training students will understand the 4 types of fire (A-D), the appropriate class (A-D) of fire extinguisher to use and the correct use of fire extinguishers.

**EIT 7090. First Aid/CPR. 0.0 Hours.**
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the fundamental concepts and practices for First Aid and CPR, this class addresses the methods for delivering prompt and properly administered care. Topics covered include response to routine injuries typically found in the home or workplace, instruction and practice in Cardiopulmonary Resuscitation (CPR).

**EIT 7091. Pesoc. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamentals and client specific functions for answering customer calls as they relate to Benefits especially related to the functions of Annual Enrollment.

**EIT 7092. Customer Service Quality Overview. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Provide a basic foundation of the Quality program for a customer service agent.

**EIT 7093. Customer Service Manager Self-Service. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The learners should be able to use MyTeam to learn to handle data issues, review communications going out, walk through callflow.

**EIT 7094. Pulte Mortgage Wingman. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Wingman training through Pulte Mortgage is designed to develop team leads in the process of mentoring subordinates. The basic of good mentoring will be the foundation for this program. To ensure this fundamental instruction will be given in the following areas of leadership: Mentoring, Giving Feedback, Listening Skills and establishing rapport. Additional tools such as Trust Walk and Mentor Scales will be utilized as well.

**EIT 7095. Arc Flash and Shock Hazard Electrical Safety. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introductory safety course providing Arc Flash and Shock Hazard Electrical per the NFPA 70E, NEC, OSHA and IEEE 1584.

**EIT 7099. Prairie Packaging Results Based Interaction. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Results based Interaction is a system designed to develop the new leader. Emphasis is placed in several areas to include: Leadership, Change Management, Conflict Resolution and Coaching. New leaders will see, learn and practice the tools necessary to run an effective team.

**EIT 7100. Leadership Basics. 0.0 Hours.**
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach three modules. The modules included are getting the information you need, speaking with confidence, positive response to change, managing life outside work, and helping your team work.

**EIT 7101. Leadership Training. 0.0 Hours.**
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This program is designed to build awareness skills and know-how necessary for all employees to rise to a new level of responsibility for their own work and for the well being of the organization.

**EIT 7102. Learning to Lead Workplace. 0.0 Hours.**
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Provides an enterprise-wide approach for aligning the power of people and knowledge with the organization’s strategic goals.

**EIT 7103. Certified Quality Engineer. 0.0 Hours.**
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach three modules. The modules included are getting the information you need, speaking with confidence, positive response to change, managing life outside work, and helping your team work.

**EIT 7104. Press Technician Training. 0.0 Hours.**
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is comprised of two intense components which are getting the information you need, speaking with confidence, positive response to change, managing life outside work, and helping your team work.

**EIT 7105. Six Sigma Green Belt Certification. 0.0 Hours.**
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Green Belts are a vital component to any successful Six Sigma program. Many organizations begin Six Sigma deployments by training Champions and Black Belts and quickly realize the need to involve a larger critical mass of people to achieve breakthrough level results from their Six Sigma initiative. This course is comprised of two intense components which create a blended learning process of online and classroom education. These sessions are spread over sixteen weeks to allow students the opportunity to apply the tools and concepts of Six Sigma to their own project. After completing the CBT modules, students will have the requisite knowledge and skills to complete projects, lead project teams and be successful as Green Belt.

**EIT 7106. Emotional Intelligence. 0.0 Hours.**
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7107. Value Stream Mapping. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course trains participants in the value stream mapping process described in the book, “Learning To See”. Value stream mapping techniques are taught in the classroom and then applied to value streams that the participants manage. Current and future state maps will be designed and then an action plan will be developed to achieve the future state.

EIT 7108. Incident Commander. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7109. Essentials of Management. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 48-hr. course is designed to build awareness and developing skills for the well being of the organization.

EIT 7110. Reach Coaching. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7111. Power of Worldviews. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Hewitt’s global workforce requires us to reach out beyond our standard work environments to other Hewitt associates in other Hewitt locations globally to service the clients that depend on Hewitt for excellent HR services. Being aware of cross-cultural competence will improve your business acumen and put you on track in helping Hewitt reach our goal of being the Best in the People Business.

EIT 7112. Delivering Effective Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares instructors that are responsible for delivering training. This course will help and instructor improve the quality and efficiency of training delivery, increase return on training investment through improved retention and transfer of knowledge and skills, and make learning events more enjoyable for both instructors and students.

EIT 7113. Behavioral Interviewing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The interview process is a critical component in our overall talent acquisition strategy. This course teaches the basic skills to adequately and appropriately assess incoming talent for the firm. The course offers and opportunity to learn and practice the core skills required for interviewing and assessing potential associates through pre-work, e-learning, class discussion and interactive role plays.

EIT 7114. Effective Conversations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Being an effective communicator is part of our promise to clients and to each other at Hewitt. Our success depends in great part on the reliability of our communication. The Effective Conversation workshop addresses the special challenges of dealing with tough conversations. Your core communication skills will be stretched and exercised in the course.

EIT 7115. Reaching for Stellar Service. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to explore the value of stellar service and the service provider’s role in achieving it.

EIT 7116. Healing Customer Relations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to develop skills that will help service providers serve customers who are concerned, angry, or upset after a service breakdown.

EIT 7117. Guiding Customer Conversations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to provide service providers with skills for conducting conversations that effectively attend to customers’ human and business needs.

EIT 7118. Fundamentals of Compensation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7119. Customer Service Orientation. 0.0 Hours. Class-480.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7120. Train the Trainer. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7121. S-S Systems. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7122. Internal Process Auditor Refresher. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7123. Internal Auditor. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Through group activities and involvement of all participants, the course provides participants with the skills to communicate the requirements of ISO 14001:2004 and ISO 18001:1999.

EIT 7124. Customer Service Representative. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7125. Product Knowledge. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7126. Virtual Product Knowledge. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7127. Problem Solving and Decision Making. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the step-by-step approach for successfully solving problems, making good decisions, and analyzing potential risks and opportunities. It helps you to maximize your critical thinking skills, systematically organize and prioritize information, set objectives, evaluate alternatives, and analyze impact.

EIT 7128. Service Express. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to the fundamental concepts of Service Express, a new tool designed for customer service representatives.

EIT 7129. Customer Service. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn how to handle challenging customers and not only meet, but exceed customer expectations.

EIT 7130. Basic Communication. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7131. Diversity. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Each student will better understand the value and richness of diverse workplace populations and the importance of acceptance and tolerance of differences.

EIT 7132. FISH! Catch the Energy - Release the Potential. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will guide you through the four principles of FISH!, and show you how simple it really is to create a workplace where energy, enthusiasm and creativity flourish. The dynamic presentation will give FISH! newcomers the tools to spark positive action, while FISH! veterans will gain a renewed inspiration, and company leaders will find ways to connect the simple wisdom of FISH! to their organizational strategies.
EIT 7133. Work/Life Balance & ISO Overview. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7134. Interpersonal Skills. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7135. Product Knowledge for Hewitt. 0.0 Hours. Class-160.0. Clinical-0.0. Lab-0.0. Work-0.0
Program supports the development of an associates job specific skills, product and tools knowledge needed in order to service the client's of Hewitt.

EIT 7136. Customer Service Payroll. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamentals and client specific functions for answering customer calls as they relate to payroll processes (e.g. Garnishment, pay cycles, etc.).

EIT 7137. Mphro Siebel Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8-hr. class will teach the fundamentals of navigating and using Siebel to service the client.

EIT 7138. Customer Service PRO and Siebel Applications Training. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This 24-hr. class will teach the fundamentals fo navigating and using Siebel and CSPRO applications to service the client.

EIT 7139. Transition New Hire Orientation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8-hr. class will teach the fundamentals of navigating Hewitt Associates' technology, Hewitt's culture and the individual's role in the new organization.

EIT 7140. Cnc Machine Programming. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7141. Expanding Industry Training (eit). 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7142. IM Essentials. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The essence of being an effective people leader lies in establishing good interpersonal work relationships and having the ability to spark action in others.

EIT 7143. Building an Environment of Trust. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Trust is a key ingredient of employee engagement and loyalty, yet it's easy for leaders to inadvertently fall into trust traps.

EIT 7144. Caring for Customers. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to help service providers develop skills for delivering friendly, attentive service that demonstrates interest in and care for customers on a human level.

EIT 7145. Dazzling Your Customers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this module is to enhance the ability of service providers to make customers feel special and valued, thereby creating experiences so surprisingly positive and memorable that customers will tell others about them and will want to sustain and build their relationships with the organization.

EIT 7146. Customer Service Time and Labor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamentals and client specific functions for answering customer calls as they relate to time and labor training.

EIT 7147. Workforce Administration. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamentals and client specific functions for answering customer calls as they relate to Workforce Administration training.

EIT 7148. Customer Service EPM. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamentals and client specific functions for answering customer calls as they relate to time EPM training.

EIT 7149. Generational Diversity. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn how Boomers, veterans, Gen Xers and Nexters can co-exist... This one-day seminar explores the four different generations in today's workplace - their habits, beliefs, differences and similarities. We'll learn to use this knowledge to create the best workforce possible. We'll explore ways in which the workplace is changing due to these four generations as well as celebrate the experiences and innovations each generation offers. Using this information, we will then explore strategies for hiring each, retaining each, and building a multi-generational workforce.

EIT 7150. Frontline Leadership. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7151. Crew Leadership Training. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7152. Live Call Center Training. 0.0 Hours. Class-210.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7153. Command Spanish for Office Personnel. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This comprehensive Spanish language program provides immediate access to functional language skills for non-Spanish-speaking medical school and office secretaries and receptionists. The language component addresses the most important Spanish commands, questions and phrases pertinent to secretarial and receptionist work. No prior knowledge of Spanish necessary.

EIT 7154. Identifying Work Priorities and Setting Verifiable Goals. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This unit combines two processes: how to identify work priorities and how to set goals that are verifiable and measurable. This course combines priority and goal setting with knowledge of individual skills, talents and abilities in effort to achieving organizational goals and meet or exceed expectations.

EIT 7155. Resolving Conflicts With Your Peers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7156. Federal and State Tax Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Identify taxable and nontaxable compensation, benefits, and fringe benefits and their effect on federal income tax taxable gross pay and social security/Medicare taxable gross pay.
EIT 7160. Performance Management: Assessment, Pay, Al, Recognition. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The overall goal of the performance management courses in Building Manager Effectiveness is to review the entire Performance Management process and how the Six Conversations relate to and drive this process in order to be effective in managing the performance of associates and making recommendations for base pay increases and Annual Incentive payouts. In addition, this training help manager throughout Hewitt follows a similar approach, so that associates expectations of their manager’s role in their development can be consistent.

EIT 7161. Managing Associate Relations Issues. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
To build managers’ awareness of key Hewitt policies, processes, and employment laws and help managers understand their responsibilities related to managing associate relations issues through early intervention, clear communication, and appropriate action.

EIT 7162. Payroll Administration. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Payroll Administration Course is a 12-week program that provides an in-depth, comprehensive study of all the aspects of payroll practice and the laws affecting payroll.

EIT 7163. Payroll Fundamentals. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The payroll Fundamentals Course is an 11-week program that provides a thorough overview of the procedures, processes, terminology, laws, and regulations that affect payroll.

EIT 7164. Tax Training for Customer Service. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Provide a basic foundation of tax laws and information for a customer service agent.

EIT 7165. Customer Service Merger Training. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares Customer Service agents to handle merger questions and support issues for the client’s employees.

EIT 7166. E*TRADE New Employee Orientation. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
New employees of E*TRADE orientation covers the essential benefits of being an E*TRADE employee through Channel*E (HR, Benefits Website). It then teaches into Customer Service training, workflow process, Account setup, margins, mutual funds and online order placing. Incubator Wrap Sessions: 3rd Party NLOA Due to Death Issues & Registration Changes Account Transfers Quality Monitoring Basic Order Types Fees & Timeframes - Setting Customer’s expectations Cost Basic Quotes Account Types Account Transfers Work tools Log Margin Accounts/Buying Power Cash Accounts/Buying Power Day Trading Buying Power Intro to Options Margin Calls/Cash Calls Corporate Actions Advanced Order Types.

EIT 7167. Achieving Stellar Service. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A comprehensive training system designed to provide a range of critical service skills vital to customer satisfaction and loyalty, and to organizational success.

EIT 7168. Logistics 101. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Understanding the Basics of Logistics / Supply Chain Management. This Logistics 101 course is designed to have participants learn, understand and utilize Supply Chain and Logistics knowledge in their daily work environment.

EIT 7169. Aplix Basic Extrusion. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Aplix basic extrusion class is designed to familiarize students with the history of extrusion. In addition pictures and terminology related to the Aplix extruder process have been placed in the custom designed materials. Upon completion of the course, students will be aware of the varies stages of extrusion and how these stages mesh to develop a product. Problem Solving or problem locating directions will be implemented in the course as well.

EIT 7170. Leadership. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This program is designed to build awareness skills and know-how necessary for all employees to rise to a new level of responsibility for their own work and for the well being of the organization.

EIT 7171. Iverify Customer Service. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Reaching for Stellar Service and Dazzling your Customer modules is to explore the value of stellar service and the service provider’s role in achieving it while enhancing the ability of service providers to make customers feel special and valued.

EIT 7172. Iverify OJT. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Customized assessments on security procedures, effective verbal/written communication skills, computer skills and software overview, evaluation, intervention and defusing techniques, and audit reports training provided by in-house trainers for new hires.

EIT 7173. Iverify 5-Day OJT. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Customized assessments on security procedures, effective verbal/written communication skills, computer skills and software overview, evaluation, intervention and defusing techniques, and audit reports training provided by in-house trainers for new hires.

EIT 7200. Manufacturing Skills. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7201. Command Spanish for Industry, Manufacturing and Warehousing. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
SIMW is a comprehensive Spanish language program that provides immediate access to functional language skills for non-spanish speaking supervisors. The language component utilizes phonetic encoding to address pronunciation of the most important Spanish commands, questions and phrases pertinent to daily interactions between supervisors and workers at industrial sites, manufacturing plants and warehouses. No prior knowledge of Spanish necessary.

EIT 7202. Math, Measurement and Blueprint Reading. 0.0 Hours.
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7203. Statistical Process Control and Lean Manufacturing. 0.0 Hours.
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7204. Manufacturing Database. 0.0 Hours.
Class-129.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7205. Statistical Process Change. 0.0 Hours.
Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7206. Radiation Safety. 0.0 Hours.
Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a basic knowledge of radiation and safe practices for working with radioactive material in a sealed or unsealed form through interactive classroom and on-the-job training.
EIT 7207. Laser Safety. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7208. Basic Machining. 0.0 Hours. Class-24.5. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7209. Basic Electricity. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course in electricity is specifically designed for the Siemens Company from consultations with company management as to its content and outcomes. The course will begin with fundamentals of basic electricity, including definitions of terms, ohm’s law, circuit analysis and basic mathematical operations, and then moving to more advanced topics in the area of motors, temperature measurements using electrical means and transformer operation. Course delivery will be accomplished with a combination of lecture and lab activities. As per ISO standards a pre and post training test will be given to evaluate the effectiveness of the training.
EIT 7210. Math and Metrology. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a step-by-step approach to mastering the metrology and mathematical skills needed by today’s technicians.
EIT 7211. Basic Metrology. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an 8-hour course that introduces the concepts of metrology with instructor demonstration, hands-on use of common precision measuring instruments.
EIT 7212. Safety. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7213. Brazing. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7214. Mechanical Maintenance. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
The Mechanical Systems Series covers the principles of operating and maintaining most types of common equipment. The series begins with a thorough grounding in the elements of mechanics, including working with hand tools, power tools, and fasteners. In logical learning sequence, the series continues through lubricants, drive components, bearings, pumps, and piping systems. It concludes with hydraulics and pneumatics, including troubleshooting.
EIT 7215. Hoist Safety. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers OSHA Standards information relating to specific overhead crane operations safety standard. Among other requirement, it allows only “qualified” personnel to operate cranes.
EIT 7216. Advanced Machining. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7241. Refrigeration. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7242. Refrigeration Certification. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7250. Basics of Supply Chain Management. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Basics of Supply Chain Management covers basic concepts in managing the complete flow of materials in a supply chain. Basics provides a complete overview of material flow from internal and external suppliers to and from an organization. This course is specifically designed to prepare the student towards certification in Production and Inventory Management.
EIT 7251. Master Planning of Resources. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares individuals for certification and to help organizations improve workplace performance.
EIT 7252. Detailed Scheduling and Planning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Focus on the various techniques for material and capacity scheduling. Study detailed descriptions of material requirements planning (MRP), capacity requirements planning (CRP), inventory management practices, and procurement and supplier planning.
EIT 7253. Execution and Control of Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Focus on the areas of prioritizing and sequencing work, executing work plans and implementing controls, reporting activity results, and providing feedback on performance. The course explains techniques for scheduling and controlling production processes, the execution of quality initiatives and continuous improvement plans, and the control and handling of inventories.
EIT 7254. Strategic Management of Resources. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. The course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.
EIT 7255. Success Factors Performance Manager CSA Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course you will learn the purpose and use of the Success Factors Performance Manager tool, how to navigate the tool, how to complete the standard forms used by your client, how to interpret dashboards and run reports, how to administer the admin functions assigned to Tier 1 associates, and how to respond to the most common questions asked by users. This course can be tailored to meet the specific needs of your client team.
EIT 7300. Hazardous Waste Operation. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7301. Hazardous Communication. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers OSHA standards information relating to Hazard Communications. It is designed to train and inform employees about hazardous chemicals in the workplace, clues for detecting chemical spills, and releases, chemical exposure, (MSDS) Material Safety Data Sheets, Container Labeling.
EIT 7302. Hazardous Energy Control. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Employees need to understand the serious hazards of energized machinery and electrical equipment; and how to follow proper lockout/ tagout procedures in order to stay safe. In addition, the standard requires that employers must certify when lockout/tagout training has taken place and when it has been updated.
EIT 7303. DOT Hazardous Materials. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completion of this course, the student will be aware of the DOT hazard communication system consisting of labels, placards, shipping papers and markings. This training will also provide the student with information regarding DOT hazmat employee training requirements.
EIT 7308. Safety Response Team Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
The participant will be provided with the training necessary to perform Defensive Spill Activities (prevention of spread only) per OSHA 29 CFR 1910.120(q)(6)(i)(ii). The course will include on-scene incident commander refresher training in accordance with 29 CFR 1910.120 (q)(6).
EIT 7309. First Responder HAZwoper. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7310. Brush Plating. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7311. 24HR Hazwoper Training. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7312. DOT Haz Mat. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This online course meets DOT requirements for training of personnel engaged in Hazardous Materials Transportation, including hazardous material handling, hazardous waste handling, shipping and manifest documents, proper markings, labels, placards, emergency communication, emergency procedures, and emergency notification.

EIT 7313. Confined Space. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour course explains what a confined space is, confined space hazards and preparing to enter.

EIT 7314. Confined Space Rescue. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares the participant to act as a confined space entrant, attendant or supervisor during a permit required confined space entry. This course also provides students with an awareness of the basics of confined space rescue techniques.

EIT 7315. Team Leader Cutting Principles. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review the existing knowledge of team leaders and explain cutting issues. Then the information will then be distributed to the operators.

EIT 7400. On-The-Job Training. 0.0 Hours. Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7401. 45-hr. Pre-licensing. 0.0 Hours. Class-45.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing students should be able to discuss the exposure, types, policy provisions and practices of Life, Accident and Health Insurance.

EIT 7402. Pre-Employment Training. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Structured and interactive methods to recruit, assess, hire and orient new employees to a company.

EIT 7403. Licensed S-CIP - English. 0.0 Hours. Class-320.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7404. Licensed S-CIP - Bilingual. 0.0 Hours. Class-320.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7405. Unlicensed Customer Insurance Representative. 0.0 Hours. Class-160.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7406. Unlicensed CRA. 0.0 Hours. Class-232.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7407. ISO Compliance. 0.0 Hours. Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7413. New Employee Orientation Specific Module. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
New Employee Orientation is provided to all new Charlotte Operations employees to provide familiarization with the company, corporate policies and procedures.

EIT 7414. Allen Bradley DC Drive Training. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides comprehensive customized operation and troubleshooting for Allen Bradley DC drive.

EIT 7415. New Employee Orientation. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7416. OPIII Orientation and Basic Skills. 0.0 Hours. Class-76.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing course, students will understand the overall operation. This class will give them brief overview of the organization’s vision, mission statement, policies and procedures.

EIT 7417. Orientation to Press Installation. 0.0 Hours. Class-76.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing the course, students will understand the overall operation. This class will give them a brief overview of the organization’s vision, mission statement, policies, procedures and techniques of press installation.

EIT 7418. Stacker Equipment. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing coursework, students will be able to understand and apply appropriate functions of the compensating stacker.

EIT 7419. Dryer Maintenance Training. 0.0 Hours. Class-35.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing course, student will be able to understand and apply different techniques of using Eco Cool Dryer.

EIT 7420. Retirement Services. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7421. New Employee Orientation at SL. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing course, students will understand the overall operation. This class will give them a brief overview of the organization’s vision, mission statement, policies and procedures.

EIT 7422. Workplace Basic Skills. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course emphasizes the needs of adults functioning above the 6th grade level but below the 9th grade level in the areas of vocabulary, interpretation and analysis of written material. Also emphasized are the mathematical areas of fractions, decimals, and percents.

EIT 7423. Time Warner Carble NEO. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Orientation is required for all new Time Warner Cable employees within their first 30 days of employment. Topics covered include Benefits, Insurance, Standards of Business, How Cable Plant works & Division and Company Overview. Employees will receive an employee handbook with information regarding Company policies and procedures.

EIT 7424. Twc Neo/Ojt. 0.0 Hours. Class-112.0. Clinical-0.0. Lab-0.0. Work-0.0

EIT 7425. Pro Line Computer Level 1 Excel Outlook. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This introductory course into MS Office for Pro Line Printing will cover the following topics: Excel, Creating and manipulating of formulas, editing data, formatting worksheets and layout customization. Word, Formatting of paragraphs, creating styles and setting tabs Outlook, managing contact, setting appointments and updating calendar entries.
EIT 7426. Punctuation and Grammar. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will help students learn to avoid common errors in written office communications. They will achieve a better understanding of how appropriate grammar and punctuation reflect professionalism in written correspondence.

EIT 7431. Macromedia Flash Introduction. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
A website can be made to look more inviting with interactive graphics and animations. The tools present in Macromedia Flash 8 help one to create and manipulate a wide variety of objects ranging from a simple graphic design to a complex animation sequence. This course is meant for students who have no exposure to the features and functions of Flash 8. The topics covered provide the critical skills you need to create objects and animations in Flash 8.

EIT 7432. Macromedia Flash Intermediate. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
You have explored the basic features and functions of Flash 8. However, a knowledge of the advanced features will help you to create custom animations. In this course, you will create simple and complex interactive movies using ActionScript.

EIT 7433. Macromedia Flash Advance. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
You have previously identified the methods for creating and managing simple Flash content for deployment over the web, as well as the usage of ActionScript commands to enhance the content. The development of more dynamic Flash content, however, requires the knowledge of advanced features and design techniques in Flash 8.

EIT 7501. 20 Hours SAFE Comprehensive Origination Essentials. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the originator pre-licensing education requirements of the SAFE Mortgage Licensing Act and prepare the students to take the federal and state licensing exam components. The 20-hour course should provide the loan originator with the ability to take a thorough, high-quality loan application and explain required disclosures to applicants. Students will learn essential terms, concepts, and math utilized in the mortgage industry. The course will also stress the importance of compliance with federal laws and ethical standards. The course includes three (3) hours of training on federal law, three (3) hours of ethical training (includes fraud, consumer protection, and fair lending issues), two (2) hours of training on non-traditional mortgage products, and twelve (12) hours of additional instruction on mortgage origination.

EIT 7502. 4 Hour SAFE North Carolina Mortgage Laws and Regulations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to meet the mortgage loan originator pre-licensing education requirements of the SAFE Mortgage Licensing Act and prepare the students to take the state component of the licensing exam. The 4-hour course should provide the mortgage loan originator (MLO) with a thorough understanding of North Carolina-specific mortgage banking legislation. All mortgage professionals operating within the state of North Carolina need to be knowledgeable about specific state laws and regulations.

EIT 7503. FHA Lending: The Basics. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
The Federal Housing Administration (FHA) provides mortgage insurance on loans made by approved FHA lenders. FHA insures mortgages on single family and multifamily homes including manufactured homes and hospitals. It is the largest insurer of mortgages in the world, insuring nearly 33 million properties since its inception in 1934. Students will learn the basics of originating, processing, underwriting and closing FHA loans.

EIT 7646. Soldering Rework. 0.0 Hours. Class-24.0. Clinical-0.0.
Lab-0.0. Work-0.0
EIT 7647. Combined Soldering. 0.0 Hours. Class-40.0. Clinical-0.0.
Lab-0.0. Work-0.0
EIT 7648. Ipc. 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0
EIT 7649. Combined Soldering Review. 0.0 Hours. Class-21.0.
Clinical-0.0. Lab-0.0. Work-0.0
EIT 7650. Component Values. 0.0 Hours. Class-8.0. Clinical-0.0.
Lab-0.0. Work-0.0
EIT 7800. Fiber Optics. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0.
Work-0.0
EIT 8090. Pulte Mortgage New Employee Orientation. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The New Employee Orientation is designed to acquaint the new employee to the benefits of working for Pulte Mortgage. In addition the skills necessary to be successful as a customer service representative for a mortgage company. This will include an overview of loan products, interviewing techniques, fraud and pricing and lock procedures Upon completion of the program students will be able to complete the following: Interview mortgage applicants Discuss hazard insurance Price and Lock interest rates Prep loan documentation for processing Detect fraud File a closing.

Film and Video Production (FVP)

Fire Protection (FIP)

FIP 7103. Fire Alarms & Communications (Level I). 0.0 Hours.
Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
Will present the candidate with the proper use of communication equipment use and the procedures for receiving any type alarm.

FIP 7105. Portable Extinguishers (Level I). 0.0 Hours. Class-7.0.
Clinical-0.0. Lab-0.0. Work-0.0
Will present the firefighter candidate with the proper use of portable extinguishers and the demonstration of the actual extinguishment of a class a and b fire.

FIP 7106. Personal Protective Equipment (Level I). 0.0 Hours.
Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Presented the function of each article of protective equip, the leading causes of death of firefighters, and the hazardous environments requiring use of protective equipment in addition, there is a great deal of information covering the scba and its use.

FIP 7107. Forcible Entry (Level I). 0.0 Hours. Class-14.0. Clinical-0.0.
Lab-0.0. Work-0.0
Enable the firefighter candidate to demonstrate their ability to force entry into a structure using varied tools and the maintenance of this equipment.
FIP 7108. Ventilation (Level I). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
Presents the firefighter candidate with the principles of ventilation, the types of ventilation and tools needed to perform ventilation to a varied type of roofs.

FIP 7109. Ropes (Level I). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the firefighter candidate to demonstrate their ability to tie varied knots and hitches, and hoist and array of equipment and identify the proper use of rope for lifelines.

FIP 7110. Ladders (Level I). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the firefighter candidate with the different types of ladders and the use of each of these ladders.

FIP 7111. Fire Hose, Appliances & Streams (Level I). 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
Will be presented the types and applications of hose, nozzles, adaptors and tools carried on a pumper. In addition, the correct application of fire streams will be included.

FIP 7113. Fire Control (Level I). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented with information that will enable him/her to combat various types of live fires including class a fires, vehicle fires and ground cover fires.

FIP 7114. Salvage (Level I). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
Enable the firefighter candidate to demonstrate various folds, rolls, deployment of salvage covers, and the construction and use of water chutes and catch alls. In addition, the course will cover the maintenance of and other uses for salvage covers.

FIP 7115. Overhaul (Level I). 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Will deal with the purpose of overhaul, how to recognize the location of hidden fires and how to expose them, and present the duties of the firefighters left at the fire scene for security.

FIP 7116. Emergency Medical Care (Level I). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
A wide range of emergency medical procedures from conducting a primary survey to infection control to cardiopulmonary resuscitation and other areas such as burn treatment and the recognition of the signs and symptoms ingested poisons and drug abuse.

FIP 7117. Rescue (Level I). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
Will enable the firefighter candidate to demonstrate a primary and secondary search procedure under fire conditions in addition, the firefighter candidate will demonstrate the removal of injured persons from the immediate hazard of those fire conditions.

FIP 7118. Water Supply (Level I). 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
Will be presented material during this course that will enable him/her to demonstrate both forward and reverse hose lays from the use of a pressurized hydrant and the use of mobile water supplies.

FIP 7119. Sprinklers (Level I). 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the value of sprinkler systems, the identification and use of sprinkler systems and fire department support of automatic sprinkler systems.

FIP 7120. Response to Hazardous Materials (Level I). 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the awareness level material to the student. It is based on the NFPA 472 standard on hazardous materials.

FIP 7121. Fire Prevention, Public Fire Education & Fire Cause (Level I). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the cause of fires and how to prevent it. The course also deals with the importance of inspections and education programs and how to conduct a public fire education program.

FIP 7124. Fire Fighter Recruit Training. 0.0 Hours. Class-84.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will meet the requirements to comply with the 1997 edition of NFPA 1403 Interior Live Burn Standard. The course will cover the 88 different subjects that are required for a firefighter to participate in a live fire training event.

FIP 7125. Hazardous Materials Awareness & Terrorism Level I. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an awareness course designed to cover basic response objectives expected of a person certified at the Awareness Level. Course topics include recognizing the presence of a hazardous material, isolating the area to protect the public and responders, and identifying the material using various methods available to a responder. The course will also include elements of terrorism and its potential impact and relationship to hazardous materials incidents. This course meets all the competencies required by OSHA 1910.120 and NFPA 472 1997 edition.

FIP 7126. Sprinklers. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the value of sprinkler systems, the identification and use of sprinkler systems and fire department support of automatic sprinkler systems. This course will also explain the value and benefits of residential Sprinkler systems.

FIP 7127. Ventilation. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the firefighter candidate with the principles of ventilation, the types of ventilation and tools needed to perform ventilation to various types of roofs.

FIP 7128. Ropes. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow firefighter candidates to demonstrate their ability to tie varied knots and hitches, and hoist an array of equipment and identify the proper use of rope for lifelines.

FIP 7129. Vehicle Extrication. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented with design features, stabilization procedures, procedures for gaining access, hazards and disentanglement procedures, access and egress points and other hazards associated with extrication procedures. The student will be exposed to new technologies, construction, design, materials, crumple zones, bumper systems, air bags and side impact protection systems.

FIP 7130. L/P Gas Emergencies. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the properties of liquified petroleum gasses, leak control procedures, and extinguishment of fires involving LPG. The student will become familiar with flammable ranges, vapor density and toxicity ranges of liquified petroleum gasses. The student will gain a working knowledge of the hazards and corrective procedures for handling incidents related to LPG and natural gas.
FIP 7131. Salvage. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter candidate to demonstrate various folds, rolls, deployment of salvage covers, and the construction and use of water chutes and catch all. In addition, the course will cover the maintenance of and other uses for salvage covers.

FIP 7132. Overhaul. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The material presented in this course will deal with the purpose of overhaul, how to recognize the location of hidden fires and how to expose them, and present the duties of the firefighters left at the fire scene for security.

FIP 7133. Personal Protective Equipment. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented the function of each article of protective equipment, the leading causes of death of firefighters, and the hazardous environments requiring use of protective equipment. In addition, there is a great deal of information covering the SCBA and its use.

FIP 7134. Emergency Vehicle Driver Safety. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The student will be presented minimum standards for persons who drive and operate emergency vehicles. Drivers license requirements for driving emergency vehicles will be covered. The student will be presented with vehicle weights, characteristics and dynamics as they relate to emergency vehicles. This course will involve extensive practical training which will be conducted under non-emergency conditions.

FIP 7135. Portable Fire Extinguishers. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the firefighter candidate with the proper use of portable extinguishers and the demonstration of the actual extinguishment of a Class A and B fire.

FIP 7136. Forcible Entry. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable firefighter candidates to demonstrate their ability to force entry into a structure using varied tools and the maintenance of this equipment.

FIP 7137. Fire Service Ladders. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the firefighter candidate with the different types of ladders and the use of each of these ladders.

FIP 7138. Fire Hose Practices. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter candidate to demonstrate the use of hoses and nozzles, adaptors and appliances and the information needed to conduct an annual service test of fire hose.

FIP 7139. Water Supplies. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented material during this course that will enable him/her to demonstrate both forward and reverse hose lays from the use of a pressurized hydrant and the use of mobile water supplies.

FIP 7140. Managing the MayDay. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will facilitate interaction between Incident Commanders and Telecommunicators, as well as lecture and discussion on how to successfully maintain command and control of a working incident while at the same time managing a May Day transmission on the fire ground. Course emphasis will be placed on the following: Incident command and control Incident accountability Rapid intervention team deployment Case studies both locally and nationally which address these type incidents.

FIP 7141. Airport Familiarization. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented material during this course that will enable him/her to respond to the mitigate incidents on an airport facility.

FIP 7142. Fire Behavior. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course integrates a discussion of physical science in the context of combustion and fire dynamics. This knowledge will assist in interpreting what is observed on the fire ground and recognize potential hazards, and it provides a basis for understanding fire control and ventilation tactical operations. The student will also be exposed to basic concepts related to combustion and fire development in structures. The same scientific principles and physical laws apply equally to other types of fire situations.

FIP 7143. Fire Prevention Standard Inspection Level I. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to develop knowledge and skills for basic fire prevention code enforcement. This course follows the guidelines set by the North Carolina Code Officials Qualification Board. Lecture, demonstration, and skills evaluation are the principal methods of instruction. Specific training areas include: rules of building code enforcement, fire code as it relates to other building codes, use of the fire prevention code, and technical provisions. Prerequisite none.

FIP 7144. Fire Prevention Standard Inspection Level II. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to develop knowledge and skills for advanced fire prevention code enforcement. This course follows the guidelines set by the North Carolina Code Officials Qualification Board. Lecture, demonstration, and skills evaluation are the principal methods of instruction. Specific training areas include: rules of building code enforcement, fire code as it relates to other building codes, use of the fire prevention code, and technical provisions. Prerequisite: completion of Fire Prevention Level I or job experience approved by the qualification board.

FIP 7145. Fire Prevention Standard Inspection Level III. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to develop knowledge and skills for advanced fire prevention code enforcement. This course follows the guidelines set by the North Carolina Code Officials Qualification Board. Lecture, demonstration, and skills evaluation are the principal methods of instruction. Specific training areas include: rules of building code enforcement, fire code as it relates to other building codes, use of fire prevention code, and technical provisions. Prerequisites: completion of Fire Prevention Level II or job experience approved by the qualification board.
FIP 7146. Leadership I - Strategies for Company Success. 0.0 Hours.  
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to meet the needs of the company officer, this  
course of leadership provides the participant with basic skills and tools  
needed to perform effectively as a leader in the fire service environment.  
This course addresses ethics, use and abuse of power at the company  
officer level, creativity in the fire service environment, and managing  
the multiple roles of the company officer.

FIP 7147. Leadership II - Strategies for Personal Success. 0.0 Hours.  
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides the company officer with the basic leadership skills  
and tools needed to perform effectively in the fire service environment.  
The course addresses ethics, use of abuse of power at the company  
officer level, creativity in the fire service environment, and management of  
the multiple roles of the company officer.

FIP 7148. Leadership III - Strategies for Supervisory Success. 0.0  
Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides the company officer with the basic leadership skills  
and tools needed to perform effectively in the fire service environment.  
The course covers when and how to delegate to subordinates, assess  
personal leadership styles through situational leadership, discipline  
subordinates, and apply coaching/motivating techniques.

FIP 7149. Swift Water Rescue Technician - Advanced. 0.0 Hours.  
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course integrates techniques learned in SRT-I, taking the students  
beyond the emphasis on self-rescue to concentrate on victim rescue. This  
course includes classroom instruction, followed by extensive hands-on  
skill development. Topics covered will include: Understanding the role  
and utilization of various line systems, to search class I to Class III swift  
water, and in some instances, class IV to VI (hydraulics and waterfalls).  
Managing the raising and lowering of litters with patients, tending a litter,  
belaying of rescuers, basic rappelling, and high line systems. Managing  
and conducting a night or low visibility river rescue.

FIP 7150. Leadership & Team Building. 0.0 Hours. Class-16.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course presents the company officer with the basic leadership skills  
and tools needed to perform effectively in the fire service environment.  
This course includes techniques and approaches to problem-solving, ways  
to identify and assess the needs of the company officers subordinates,  
methods for running meeting effectively in the fire service environment,  
and decision making skills for the company officer. This course addresses  
ethics, use and abuse of power at the company officer level, creativity in  
the fire service environment, and management of the multiple roles of  
the company officer. The final element of this course covers when and how  
to delegate to subordinates, assess personal leadership styles through  
situational leadership, discipline subordinates, and apply coaching/motivating  
techniques.

FIP 7151. Fire Management for New Officers. 0.0 Hours.  
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to acquaint officer candidates with the many  
interpersonal and administrative duties of a company officer. Interpersonal  
topics covered include communications, public relations and education,  
and dealing with public inquiries and concerns. Emphasis is placed on  
human resources and the performance review and development process.  
Administrative topics covered include the Charlotte Fire Department  
Operations Manual, the Charlotte Fire Department Strategic Plan, the  
Charlotte Fire Department Annual Report, budget management, employee  
benefits, leave time, payroll, fire department information technology,  
computer-aided dispatch, and records management. Students will review  
basic code enforcement information and fire cause determination.

FIP 7152. Firefighting Foam. 0.0 Hours.  
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to cover the uses of firefighting foam. Firefighting  
foam can be used to fight multiple types of fires and to prevent the  
ignition of materials that could be involved in a fire. The student will be  
exposed to new types of foams and efficient systems for applying foam.  
Demonstrations will show the use in neutralizing hazardous materials and  
decontamination.

FIP 7153. Radiation Preparedness and Response. 0.0 Hours.  
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will provide an overview of Radiological Emergency  
Preparedness for first responder agencies responding to a nuclear/  
radiological incident in Mecklenburg County. It will also cover ways to  
help manage when dealing with Weapons of Mass Destruction. Students  
will review various methods on detecting radiation, equipment used,  
decontamination procedures and overall safety working at radiological  
incidents. For fire personnel, this program will discuss response,  
operations and decontamination at radiological incidents. For law  
enforcement personnel, this program will discuss radiological awareness,  
traffic control points/security and decontamination procedures.

FIP 7154. Public Safety Diver. 0.0 Hours.  
Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0  
Public Safety Diver (PSD) standardizes non-divers and open-water  
divers as PSDs. A PSD certification combines the fundamentals taught  
in an open-water class with an emphasis on the exacting skills required  
to successfully dive in a rescue/recovery operation. The Public Safety  
Diver programs meet or exceed all the requirements set forth by the  
Recreational Scuba Training Council. PSD students are taught basic  
leadership skills, proper use of Scuba equipment & maintenance, dive related  
injuries, diving physics, physiology, and dive planning using the US Navy  
Dive Tables. All these topics are covered with classroom lecture, pool  
& open-water skill sessions. The student is required to pass a written  
final exam with a minimum score of 80%, the IADRS swims test - min  
score of 12, and successful completion of all scuba skills in an open-water  
environment.

FIP 7155. Dive Rescue 1. 0.0 Hours.  
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0  
Learn the fundamentals of dive operations from scene evaluation through  
incident debriefing. Public safety divers and support personnel  
are prepared to respond effectively to a water-incident scene. Topics  
include: overview of public safety drowning accidents; selecting, training,  
and equipping dive teams; family media and other agencies relations;  
search pattern fundamentals; victim retrieval tactics; responding to  
vehicle accidents; accident scene documentation; and an introduction to  
specialized equipment. Programs are presented in a classroom, a pool,  
and at an open-water training site.

FIP 7156. Water Rescue Equipment - Dry Suits. 0.0 Hours.  
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0  
Dry Suit Diving addresses the proper precautions needed when diving  
in potentially hazards conditions. Without proper protection from  
your potentially hazardous diving environment, your rescue/recovery  
operation may be hindered or halted. One of the first steps to preparing  
for contaminated water or ice diving is learning how to dive in a dry  
suit. Dry suit diving topics include: history of the dry suit, suit types,  
accessories, sizing, custom adjustments, emergency procedures, repairs,  
and maintenance.
FIP 7157. Chief Officer Development-Leadership. 0.0 Hours.  
Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides an educational experience that helps company officers or chief officers to recognize what effective leadership is, understand the differences between leadership styles, and develop the skills required to select the most appropriate style for them and the situation. In addition to pre-course assignments which must be completed prior to the student's arrival on the first day, the four-day session consists of lecture and group activities.

FIP 7158. Chief Officer Development - Human Resource Development. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to aid company officers or chief officers in developing skills and knowledge to effectively manage and develop the human resources in his or her command. In addition, the candidate will study ways of managing risk reduction responsibilities at the Battalion Chief level and its effect on the overall risk reduction mission of the Charlotte Fire Department. In addition to pre-course assignments, the four-day session consists of lecture, group activities and discussion.

FIP 7159. Chief Officer Development - Command & Control of Incident Operations. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides an educational experience that will help company officers or chief officers to perform competently in an emergency situation as the primary decision-maker at emergency incidents of all types. The four-day session consists of lecture, group activities, and incident simulations.

FIP 7160. Chief Officer Development - Fire Department Operations At Target Hazards. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course provides an educational experience that will help company officers or chief officers to apply techniques learned in Command and Control of Incident Operations, in controlling incidents involving target hazards in an urban Fire Department. The four-day session will utilize simulations exercises.

FIP 7161. Personal Protective Equipment/Search. 0.0 Hours.  
Class-35.0. Clinical-0.0. Lab-0.0. Work-0.0  
The firefighter candidate will be presented the function of each article of protective clothing, leading causes if firefighter deaths and the hazardous environments requiring use of personal protective equipment, including training and use of self-contained breathing apparatus.

FIP 7162. Ladders. 0.0 Hours. Class-35.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course presents the firefighter candidate with the different types of ladders and the use of each ladder presented, including safety, standards, limitations and maintenance.

FIP 7165. Fire Chief 101. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
This class will satisfy the 9s inspection criteria as specified by the North Carolina Administrative Code. The primary objective of the course is to inform current and future chief officers of the various aspects and complexities surrounding the operations and organization of North Carolina fire departments. Upon completion of the course students will be better equipped to meet the challenges of the chief officer position.

FIP 7173. Fire Officer III. 0.0 Hours. Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will present the Fire Officer candidate with the knowledge, skills, and ability to satisfy the requirements of Chapter 6 of NFPA 1021: Standard for Fire Officer Professional Qualifications. This course is designed to meet the needs of an executive management position. The course involves study in the areas of human resource management, fire department administration, community relations, budget preparation, and records management.

FIP 7174. Apparatus and Hydraulics Refresher. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0  
The Apparatus and Hydraulics-Driver/Operator Pumps refresher is designed to refresh all candidates who drive and operate fire apparatus during both emergency and non-emergency situations. The course seeks to establish a minimum level of skill and efficiency with apparatus handling and pump operation. Upon completion of the course the successful candidate should be able to demonstrate practical knowledge and application in driving a fire apparatus and establishing and maintaining various pumping operations.

FIP 7175. Technical Rescuer Refresher. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will refresh the skills of the Technical Rescuer. The Rescuer will revisit the skills and demonstrate their abilities to perform rescues in various types of environments and implement technical rescue skills to effect a rescue. Topics include rescue situations in structural and wilderness settings. Upon completion of the course, successful students should be proficient in the operations necessary to mitigate various rescue scenarios.

FIP 7198. Preparation for Initial Company Operations. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for company officers, acting company officers, or senior firefighters responsible for the management of a single fire company on a relief basis. This course will develop better understanding of the roles and responsibilities needed to prepare a fire company incident operations. The course will also expand upon the responsibilities for company readiness, personnel safety, and leadership as it relates to company operation.

FIP 7199. Strategy and Tactics for Initial Company Operations. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to develop the management skills needed to define and accomplish tactics at structure fires by company officers, acting company officers, or senior firefighters who command a fire company on a relief basis. Students completing this course will be able to make use of the Communications Model and the Quick Access Pre-fire Plan in tactical incidents. Among the many topics presented during the course, the relationship between incident priorities, strategy, tactics and implementation will be discussed relating to the command sequence. Consideration of risk versus benefit, and the use of the Tactical Action Model based on incident assessment will be accomplished through the use of many table-top presentations.

FIP 7203. Fire Alarms & Communications (Level II). 0.0 Hours.  
Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0  
Course provides for the defining of the policies and procedures concerning the ordering and transmitting of multiple alarms and the action to be taken upon receipt of these signals.
FIP 7204. Fire Behavior (Level II). 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Enable the firefighter candidate to demonstrate his/her knowledge in the terminology used in the area of fire behavior, the hazards of different fuels and the types of heat sources.

FIP 7205. Ventilation (Level II). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
With the use of and need for automatic venting devices, the methods for ventilating basements, the use of forced ventilation and the considerations that must be made when ventilating a structure.

FIP 7207. Fire Hose, Appliances & Streams (Level II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter candidate to demonstrate the use of hoses and nozzles, adaptors and appliances and the information needed to conduct an annual service test of fire hose.

FIP 7208. Foam Fire Streams (Level II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will gain an understanding of foam generation and the types of foam and their uses.

FIP 7209. Fire Control (Level II). 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
Deals with the extinguishment of a multitude of different fires and the use of various tools and extinguishing agents.

FIP 7210. Overhaul (Level II). 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the indication of structural instability and the firefighters role in the perserving of evidence of fire cause and origin.

FIP 7211. Rescue (Level II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Will present the firefighter candidate with techniques and safety procedures to be used during a number of rescue activities and the proper use of rescue tools and the extraction of entrapped victims from motor vehicles.

FIP 7212. Rescue. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the firefighter candidate with techniques and safety procedures to be used during a number of rescue activities and the proper use of rescue tools and the extraction of entrapped victims from motor vehicles.

FIP 7213. Sprinklers (Level II). 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the various types of sprinkler systems as well as their components and the reliability of automatic sprinkler systems.

FIP 7215. Fire Prevention, Public Education, Fire Cause (Level II). 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter candidate to prepare a fire-pre plan, conduct a building fire safety survey and be presented with school exit drill procedures. Also, this course covers the most common fire hazards and the cause and point of origin of fires.

FIP 7216. Building Construction (Level II). 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter candidate to identify the different types of construction and their reaction during a fire situation and the hazards associated with each.

FIP 7225. Hazardous Materials Operations & Terrorism Level II. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to cover responding to hazardous materials incidents in a defensive manner. Course topics include advanced recognition and identification procedures. Various defensive actions to limit the harm of an incident of this type will be demonstrated. The course also includes understanding the elements of terrorism and its potential impact and relationship to a hazardous materials incident. This class meets all the competencies required by OSHA 1910.120 and NEPA 472 1997 edition.

FIP 7278. Engine Company Operations. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to reinforce and strengthen the existing skills of firefighters. The curriculum consist of three sections which will cover operations carried out by engine companies, hose deployment, and fire attack. This course is designed to challenge members to look "outside the box" and use different methods to improve efficiency and effectiveness.

FIP 7279. Ladder Company Operations. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to reinforce and strengthen the existing skills of firefighters. The curriculum consist of five sections which cover operations carried out by ladder companies within the department. The course is also designed to challenge department members to look outside the box and use different methods to improve efficiency and effectiveness.

FIP 7300. Fire Fighter I & II (level I & II). 0.0 Hours. Class-600.0. Clinical-0.0. Lab-0.0. Work-0.0
FIP 7301. Fire Dept Organization (Level I-II). 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the student to complete the objectives for Firefighter I & II related to fd organization they will become aware of the mission and purpose of the fire department rules and regulations and the components of an incident command system.

FIP 7303. Fire Alarms & Communication (Level I & II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow a student to complete objectives related to fire alarm & communications for Firefighter I & II.

FIP 7304. Fire Behavior (Level I & II). 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student complete the objectives related to fire behavior for Firefighter I & II.

FIP 7305. Portable Extinguishers (Level I & II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student complete the objectives related to portable fire extinguishers for Firefighter Level I & II.

FIP 7306. Personal Protective Equipment (level I & II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow a student to complete the objectives related to personal protective equipment for Firefighters Levels I & II.

FIP 7307. Forcible Entry (Level I-II). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all the related objective to the subject of forcible entry for Firefighter Level I & II.

FIP 7308. Ventilation I & II (Level I & II). 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the firefighter candidate with the principles of ventilation, types of ventilation and tools needed to perform ventilation. Student will be shown automatic ventilation devices, methods for ventilating basements, the use of forced ventilation, and considerations that must be made when ventilating a structure.
FIP 7309. Ropes (Level I & II). 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student to complete all objectives related to ropes for Firefighter Levels I & II.

FIP 7310. Ladders (Level I & II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student to complete all objectives related ropes for Firefighter Level I & II.

FIP 7311. Fire Hose, Streams & Appliances (Level I & II). 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the student in all objectives related to fire hose, appliances, and streams in compliance with Firefighter Level I & II.

FIP 7312. Foam Fire Streams (Level I & II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will detail all objectives related to use of use of foam as it relates to fire streams for Firefighter I & II.

FIP 7313. Fire Control (Level I & II). 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all objectives related to fire control for both Firefighter I & II.

FIP 7314. Salvage (Level I & II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will objectives related to salvage for firefighter I & II.

FIP 7315. Overhaul (Level I & II). 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all objectives related to overhaul for firefighter I & II.

FIP 7316. Emergency Medical Care (Level I & II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the student in the objectives related to emergency care for both firefighter I & II levels.

FIP 7317. Rescue (Level I & II). 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the objectives related to rescue as it pertains to firefighter level I & II.

FIP 7318. Water Supplies (Level I & II). 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
This course meets all the requirements for firefighter level I & II for water supplies objectives.

FIP 7319. Sprinklers (Level I & II). 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train students in all objectives related to sprinklers for firefighter I & II.

FIP 7320. Response to Hazardous Materials (Level I & II). 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
Response to hazardous materials - awareness/Operation this course will cover all objectives related to the awareness and operations level for both firefighter I and II levels.

FIP 7321. Fire Prevention, Education & Cause (Level I & II). 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all objectives related to fire prevention, public fire education, and fire cause as related to firefighter I & II.

FIP 7322. Building Construction (Level I & II). 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all objectives related to fire prevention, public fire education, and fire cause as related to Firefighter I and II.

FIP 7323. Fire Department Orientation (Level I & II). 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter to become aware of the basic and advanced operations of the department and understand their position in the organization from a basic and advanced detailed perspective. Course topics will also include the review of basic and advanced safety regulations and the firefighter responsibility to comply with those regulations, the review of the elements of a basic and advanced departmental safety program and a review of the basic and advanced hazards related to fire protection.

FIP 7325. Hazardous Materials Awareness/Operations & Terrorism (Level I & II). 0.0 Hours. Class-43.0. Clinical-0.0. Lab-0.0. Work-0.0
This course combines both the Haz Mat Awareness and the Operations into one program. Course topics include recognition, isolation, identification, and various defensive control options available to the Haz Mat Operations level responder. The course also includes elements of terrorism and its potential impact and relationship to a hazardous materials incident. This class meets all the competencies required by OSHA 1910.120 and NFPA 472 2008 edition.

FIP 7400. Fire Fighter Recertification Training. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide training towards the 30-hour annual standards-based training requirement of the NC Fire Rescue Commission. The content of this course may change based upon local need and must be based upon NFPA Standards.

FIP 7401. Firefighter Recertification. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students with information and training on a variety of basic subjects related to Firefighter I and II. This material will go towards meeting the annual requirement of a minimum of 30 hours of standard based training.

FIP 7402. Firefighter Cadet Training Program. 0.0 Hours. Class-600.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter to become FFI and FFII certified according to the North Carolina State Fire and Rescue Commission. This course will cover all topics in the certification.

FIP 7500. National Fire Academy Courses. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a series of courses that have been developed by the national fire academy for delivery at the state and local level should be used only if a nfa course is not listed as a current course.

FIP 7600. Driver Operator Speciality. 0.0 Hours. Class-19.0. Clinical-0.0. Lab-0.0. Work-0.0
This collection of course will allow the individual to become certified as a driver operation specialty.

FIP 7601. Fire Apparatus: Emergency Vehicle Driver. 0.0 Hours. Class-19.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the safe operation of emergency vehicles, driving skills, legal implications of emergency driving and departmental standard operating procedures. This course is one of three required for driver operator certification (need fip 3602 & 3603).

FIP 7610. Driver Operator/Introduction To Pumps. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will explain and identify job and individual requirements for pump operators and will detail safe operation of the vehicle. It will also detail the safe operation as well as the basic aspects of positive displacement and centrifugal pumps.
This course will review and explain basic elements of pump operations including priming, lift drafting, pumping from a hydrant, setting engine pressure & calculating friction loss.

**FIP 7612. Driver Operator/Pump Maintenance. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will detail all portions of preventative maintenance on various pumps. It will also cover proper recording keeping procedures and the proper methods to clean and maintain nozzles, appliance, and scuba equipment on a pumper.

**FIP 7613. Driver Operator/Sprinklers & Standpipes. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will discuss and detail operations regarding set and supply operations for pump operators for sprinkler systems and wet and dry standpipe systems. It will include a review of control valves, pressure setting and operations procedures.

**FIP 7614. Driver Operator/Pump Hydraulics. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will detail vacuum pressure, normal operating pressure, residual head and static pressure as it related to the operation of a fire pumper during and emergency operation.

**FIP 7615. Driver Operator/Pump Service Testing. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will explain and demonstrate the proper methods and procedures used to test fire service pumping apparatus for service testing. Underwriter’s laboratory certification, a three-hour service test, the acceptance test and other testing and priming tests required for fire service pumps.

**FIP 7616. Driver Operator- Pumps Water. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will review and discuss the methods by which water supply is obtained and maintained during an emergency operation. It will detail water main systems and will describe how to identify and determine flow in such systems. It will also detail mobile water supply systems and how they operate. It will describe and explain quick dump mobile water supply operations and detail methods for relaying water to a pumper.

Prerequisites: Take FIP 7601 with a minimum grade of S

**FIP 7617. Driver Operator-Introduction to Fire Department Aerial Apparatus. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course is designed to introduce personnel to various types of aerial fire apparatus and their applications to emergency operations. It will include job and individual performance issues; how to identify various types of aerial apparatus, features of the design and application of aerials and elevating platforms. It will also review unsafe acts as it relates to weather and terrain in placement and use of aerials. It will also review unsafe acts as it relates to driver operator errors.

**FIP 7618. Driver Operator-Basic Aerial Apparatus Operations. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will review the application and use of various types of aerials including articulating booms, telescoping booms, elevated platforms, and aerial ladders. It will detail tip loads and uses of master streams from aerials devices.

**FIP 7619. Driver Operator - Aerial Maintenance. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will list and detail the various systems on an aerial and detail methods and procedures to be used to maintain and service these systems. This included cables, hydraulic systems, stabilization units, electric systems, turntable devices, breathing air systems and the water ways on such units. The course will detail maintenance on each type of aerial apparatus.

**FIP 7620. Driver Operator - Testing Fire Service Aerial Apparatus. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will list and demonstrate the methods and procedures to follow to test key aspects of aerials devices as specified in the NFPA standard. It will included service testing of ladders, specify required tests and review records that are required to be maintained for testing procedures.

**FIP 7700. Fire Officer Speciality I. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0**
This is a speciality course for fire officers related to command, management, and supervision.

**FIP 7705. Fire Officer Qualification. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will provide instruction for personnel who wish to teach fire and EMS subjects. The course material is the IFSTA Fire and Emergency Service Instructor Program. Instructors for this class must be qualified by a committee of three representatives from OSFM, OEMS, and NCSCS. This course meets the objectives of NFPA 1041 and Level II Standard.

**FIP 7902. Instructor (Level II). 0.0 Hours. Class-72.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will cover all aspect of the NFPA 1041 Level II standard. Upon successful completion, the student will be qualified to be a Level II fire instructor.

**FIP 7905. Education Methodology. 0.0 Hours. Class-64.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will provide instruction for personnel who wish to teach fire and EMS subjects. The course material is the IFSTA Fire and Emergency Service Instructor Program. Instructors for this class must be qualified by a committee of three representatives from OSFM, OEMS, and NCSCS. This course meets the objectives of NFPA 1041 and Level II Standard.

**FIP 7908. Industrial Fire Brigade: Communications. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will present basic fire safety concepts and procedures to hospital employees.

**FIP 7903. Industrial Fire Brigade: OSHA Comp. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will detail methods and procedures related to fire safety industry relative to osha standards.

**FIP 7905. Industrial Fire Brigade: Intermediate. 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will provide intermediate level training to memb- ers of an industrial fire brigade.

**FIP 7906. Industrial Fire Brigade: Advanced. 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will detail advanced level training to members of and industrial fire brigade.

**FIP 7907. Industrial Fire Brigade: Management. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will cover the procedures of the management and supervision of an industrial fire brigade manager.

**FIP 7908. Industrial Fire Brigade: Communications. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0**
This course will detail standard procedures and practices on the use of radio communications during an emergency incident.
FIP 7909. Industrial Emergency Response Training. 0.0 Hours.  
Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will detail various OSHA based training and appropriate  
response operations for industrial teams.

FIP 7910. Ventilation I&II. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course presents the firefighter candidate with the principles of  
ventilation, the types of ventilation and tools needed to perform ventilation  
on various types of roofs.

FIP 7911. Incident Command Systems. 0.0 Hours. Class-33.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course will allow students to be exposed to new and emerging issues  
in fire and rescue as well as broaden your awareness of the Incident  
Command System.

FIP 8000. Wildlands Fire Protection Speciality. 0.0 Hours. Class-48.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This is a series of courses dealing with specialty training in wildland fire  
protection.

FIP 8001. Wildland Fire Suppression. 0.0 Hours. Class-14.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
Designed for the rural fire department firefighter as a supplement to their  
regular training program as outlined in NFPA pamphlet 1001. DESIGNED  
for both the firefighter with little experience and the firefighter with  
experience in wildland fires, who are not fulltime wildland firefighters and  
are limited to small unit initial attack units.

FIP 8002. Wildfire Fire Cause and Investigation. 0.0 Hours.  
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will provide training on the proper methods and procedures to  
follow during the investigation of a wildland fire. It will detail all aspects of  
cause, determination and investigation techniques.

FIP 8003. Wildland Incident Command Systems. 0.0 Hours.  
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0

FIP 8004. Wildland/Urban Interface Fire Fighting. 0.0 Hours.  
Class-19.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will cover aspects related to the mix of structures and  
woodland and train rural fire personnel in methods and tactics related to  
fires in the interface.

FIP 8101. Mountain Rescue Unit I. 0.0 Hours. Class-14.0. Clinical-0.0.  
Lab-0.0. Work-0.0

FIP 8102. Mountain Rescue Unit II. 0.0 Hours. Class-14.0. Clinical-0.0.  
Lab-0.0. Work-0.0

FIP 8103. Mountain Rescue Unit III. 0.0 Hours. Class-14.0. Clinical-0.0.  
Lab-0.0. Work-0.0

FIP 8104. Fire Behavior. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will allow the student to complete the objectives related to fire  
behavior for Firefighter I and II.

FIP 8105. Mountain Rescue Unit V Portable Extinguishers (Level 1).  
0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0  
Will present the firefighter candidate with the proper use of portable  
extinguishers and the demonstration of the actual extinguishment of a  
Class A and B fire.

FIP 8106. Water Rescue and Recovery. 0.0 Hours. Class-29.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course will train personnel on methods and procedures used for  
rescue operations in various bodies of water. It will also detail methods of  
body recovery.

FIP 8109. Receipt Supported Occupational Training. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

FIP 8110. Motorsports Accidents Care Team. 0.0 Hours. Class-19.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8112. Trench Rescue. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0  
The course will train personnel in methods and operations related to  
trench collapses and rescue operations.

FIP 8113. Confined Space. 0.0 Hours. Class-38.0. Clinical-0.0. Lab-0.0. Work-0.0  
The course will train personnel in methods and operations related to  
rescue in confined space situations. It will also cover OSHA related  
standards.

FIP 8115. Agricultural Machinery Rescue. 0.0 Hours. Class-19.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8116. Bus Rescue Operations. 0.0 Hours. Class-19.0. Clinical-0.0.  
Lab-0.0. Work-0.0

FIP 8117. Managing the Search Function. 0.0 Hours. Class-48.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8118. Search Management: Man Tracking. 0.0 Hours. Class-19.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8119. Search Management: Dog Teams. 0.0 Hours. Class-19.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8120. Collapse Rescue Operations. 0.0 Hours. Class-29.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8121. Diaster Rescue Operations. 0.0 Hours. Class-29.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8122. Critical Incident Stress and Emergency Response. 0.0  
Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0

FIP 8123. Underwater Search and Recovery. 0.0 Hours. Class-48.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to teach intermediate and advanced skills in  
underwater search and recovery. Participants will use SCUBA with surface  
communication and surface supplied air communication. Participants will  
work from a surface support boat and will be expected to work at varying  
water depths. Participants must be certified by a nationally recognized  
agency to the Advanced Open Water Level or above. The student must also  
request and complete the medical and liability release forms prior to  
participation. Required equipment: mask, fins, snorkel, wet suit, BCD,  
regulator with SBG, depth gauge, alternate air source, weights, dive knife,  
cylinder, minimum size 72 cu. ft.

FIP 8124. Boat Water Rescue. 0.0 Hours. Class-72.0. Clinical-0.0.  
Lab-0.0. Work-0.0  
Water rescue boatcrew member will learn physical fitness and personnel  
survival equipment, seamanship (line handling) and ground tackle,  
underway operations and watches, personnel rescue and evacuation  
operations, basic piloting and navigation, boat communication, towing and  
assistance operations, firefighting operations, and first aid.

FIP 8125. Rescue and Electrical Hazards. 0.0 Hours. Class-14.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8126. Wilderness Survival Unit I. 0.0 Hours. Class-19.0.  
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8131. Aircraft Rescue: Small Fixed Wing. 0.0 Hours. Class-14.0.  
Clinical-0.0. Lab-0.0. Work-0.0
FIP 8132. Aircraft Rescue: Medium to Large Fixed Wing. 0.0 Hours.
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

FIP 8133. Aircraft Rescue: Rotary Wing. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0

FIP 8136. Underwater Search & Rescue. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach intermediate and advanced skills in underwater search and recovery. Participants will use SCUBA, SCUBA with surface communication and surface supplied air communication. Participants will work from a surface support boat and will be expected to work at varying water depths. Participants must be certified by a nationally recognized agency to the Advanced Open Water Level or above. The student must also request and complete the medical and liability release forms prior to participation. Required equipment: mask, fins, snorkel, wet suit, BCD, regulator with SBG, depth gauge, alternate air source, weights, dive knife, cylinder, minimum size 72 cu. ft.

FIP 8137. Trench Rescue. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The course will train personnel in methods and operations related to trench collapses and rescue operations.

FIP 8138. Confined Space. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train personnel in methods and operations related to rescue in confined space situations. It will also cover OSHA related standards.

FIP 8143. Emergency Vehicle Driver Safety. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
The student will be presented minimum standards for persons who drive and operate emergency vehicles. Drivers license requirements for driving emergency vehicles will be covered. The student will be presented with vehicle weights, characteristics and dynamics as they relate to emergency vehicles. This course will involve extensive practical training which will be conducted under non-emergency conditions.

FIP 8201. Firefighters Role in Fire Investigation. 0.0 Hours. Class-19.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course provides the firefighter with a complete under- standing of their role and responsibilities related to deter- mining cause and origin of a fire.

FIP 8202. Fire Cause and Determination. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will train fire personnel in investigation methods and procedures to be used to conduct complete investigations into the cause and determination of a fire.

FIP 8208. Automobile Fire Investigation. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is a specialty course that will train personnel in the unique aspects or vehicle fire investigation.

FIP 8209. Clandestine Drug Labs and Fire Service. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers firefighters and rescue personnel informa- tion necessary in the recognition, impact and response to situations involving clandestine drug labs and detonation of bombs. Class will include procedures for responding to in- cidents involving both clandestine drug labs and bombs.

FIP 8210. Specialized Topics in Arson. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide training in new and advan ced techniques and emerging topics related to fire and arson investigation.

FIP 8211. Interview Techniques for Fire Service Personnel. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train fire service personnel in the infor- mation necessary to increase proficiency in interviewing techniques an how to properly obtain oral and written state- ments.

FIP 8212. Taking the Fire to Court. 0.0 Hours. Class-14.0. Clinical-0.0.
Lab-0.0. Work-0.0
The cause and origin of fire and the fire scene examination leading to the identification of the cause and origin is tou- ched on briefly. There will be discussions regarding the legal issues of the fire scene examination and documentation of the fire scene examination.

FIP 8213. Investigation of Fire Fatalities. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0
This is a course which provides fire officials with proper training in the investigation of a death from fire. the course will detail forensic techniques and procedures.

FIP 8214. Forcible Entry Tools. 0.0 Hours. Class-440.0. Clinical-0.0.
Lab-0.0. Work-0.0
Enable the firefighter candidate to demonstrate their ability to force entry into a structure using varied tools and the maintenance of this equipment.

FIP 8304. Chief Officer Development: Fire Ops Target Hazards. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an educational experience that will help company officers or chief officers to apply techniques learned in Command and Control of Incident Operations, in controlling incidents involving target hazards in an urban Fire Department. The four-day session will utilize simulations exercises.

FIP 8317. Company Officer I - Basic Company Officer. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Basic Company Officer course is designed to lay a foundation of understanding the basic functions and duties of the Company Officer. This session consists of three pre-course assignments which must be completed prior to the students arrival on the first day of class. The four day session consists of lecture and group activities addressing the following topics.

FIP 8318. Company Officer II Advanced Company Officer. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Advanced Company Officer is designed to instruct Officer Candidates in the more challenging areas of company management. This session consists of 4 pre- course assignments which must be completed prior to the student’s arrival on the first day of class. The four day session consists of lecture, group activities, and role playing exercises.

FIP 8319. Company Officer III - Company Tng & Preparedness. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Company Training and Preparedness course is designed to instruct Officer candidates on the importance of company readiness and training at the company level. This session consists of 2 pre-course assignments which must be completed prior to the students arrival on the first day of class. This four day session consists of individual presentations, lecture and group activities.

FIP 8320. Company Officer IV Firefighting Strategy & Tactics. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Firefighting Strategy and Tactics is designed to instruct Officer Candidates on sound emergency incident decision making and firefighting strategy and tactics. This session consists of two pre course assignments.
FIP 8330. Building Construction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the principles and practices related to various types of building construction, including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions, meeting NFPA 1021.

FIP 8331. Fire Hose, Streams, Appliance and Foam. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the principles of fire streams, types, design, operation, nozzle pressures, effects, flow, open, close, adjust various nozzles, flow patterns, multiple fire attacks and capabilities. Deploy and operate various types of hose, connecting to various water supplies, including fire department pumpers, deploy various foam applications, clean, inspect and return hose to service, and perform hose testing procedures, including test results.

FIP 8332. Fire Control. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course presents the methods that firefighters most frequently use to attack and extinguish various types of fires. Fire suppression refers to all tactics and tasks performed on the fire scene to achieve extinguishment of fire, including wild fires, ground fires, structure fires, vehicle fires and gas or liquid fires. Upon completion of the course, the student should be able to identify various types of fire, deploy correct suppression methods and use tactics to achieve extinguishment.

FIP 8351. Company Officer I - Basic Company Officer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Basic Company Officer course is designed to lay a foundation of understanding the basic functions and duties of the Company Officer. The sessions consists of three pre-course assignments which must be completed prior to the student's arrival on the first day of class. The four day sessions consist of lectures and group activities. Upon completion of the course the successful student should be able to master basic fire company operations.

FIP 8352. Company Officer II - Advanced Company Officer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Advanced Company Officer course is designed to instruct Officer Candidates in the more challenging areas of company management. The sessions consist of four pre-course assignments which must be completed prior to the student's arrival on the first day of class. The four day class consists of lecture, group activities and role playing. Upon completion of the class the successful student should be able to master the more complex issues facing a Company Officer.

FIP 8353. Company Officer III - Company Training and Readiness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Company Officer and Preparedness course is designed to instruct Officer Candidates on the importance of company readiness and training at the Company level. The sessions consist of two pre-course assignments which must be completed prior to the student's arrival on the first day of class. The four day session consists of lecture, individual presentations and group activities. Upon completion of the course the successful student should be able to master company readiness issues.

FIP 8354. Company Officer IV - Firefighting Strategy and Tactics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Firefighting Strategy and Tactics course is designed to instruct Officer Candidates on sound emergency incident decision-making and firefighting strategy and tactics. This session consists of two pre-course assignments which must be completed prior to the student's arrival on the first day of class. The four day class consists of lecture group activities and emergency incident simulations.

FIP 8361. Chief Officer Development I - Leadership. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an educational experience that helps Company Officers or Chief Officers to recognize what effective leadership is, understand the difference between leadership styles and develop skills required to select the most appropriate leadership style for given situations. In addition to pre-course assignments which must be completed prior to the student's arrival on the first day, the four day session consists of lecture and group activities.

FIP 8362. Chief Officer II - Human Resource Development and Community Risk Reduction. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to aid the Chief Officer Candidate in developing skills and knowledge to effectively manage and develop the human resources in their command. Also, the Candidate will study ways of managing risk reduction responsibilities at the Battalion Chief level and its effect on the overall risk reduction mission of the Charlotte Fire Department. There are required pre-course assignments in addition to the four day classroom sessions, consisting of lecture, group activities and discussion. Upon completion of the course, the successful Chief Officer Candidate should be able to effectively manage both personnel and risks under their command.

FIP 8363. Chief Officer III - Command and Control of Incident Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the Chief Officer Candidate to perform as the primary decision-maker at all types of emergency incidents. The candidate will focus on the application of the Incident Command System (ICS). The four day session will consist of lecture, group activities and incident simulations. Upon completion of the course, the candidate will be able to demonstrate the ability to successfully handle command and control of complex incidents.

FIP 8364. Chief Officer IV - Fire Department Operations at Target Hazards. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Chief Officer IV course provides an educational experience that will help either Company Officers or Chief Officers to apply techniques learned in Command and Control of Incident Operations, FIP-8363. Objectives include controlling incidents involving target hazards in an urban setting. The four day course utilizes virtual simulations of various urban incidents. Upon completion of the course, the student should be able to master the necessary operations required for a successful outcome of complex incidents in the urban environment.

FIP 8371. Apparatus and Hydraulics - Driver/Operator Pumps. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Apparatus and Hydraulics-Driver/Operator Pumps course is designed to prepare the candidate to drive and operate fire apparatus during both emergency and non-emergency situations. The course seeks to establish a minimum level of skill and efficiency with apparatus handling and pump operation. Upon completion of the course the successful candidate should be able to demonstrate practical knowledge and application in driving a fire apparatus and establishing and maintaining various pumping operations.
FIP 8372. Apparatus and Hydraulics - Driver/Operator Aerial. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Apparatus and Hydraulics-Driver/Operator Aerial course is designed to prepare the candidate to drive and operate fire apparatus during both emergency and non-emergency situations. The course seeks to establish a minimum level of skill and efficiency with apparatus handling and aerial operation. Upon completion of the course the successful candidate should be able to demonstrate practical knowledge and application in driving a fire apparatus and effective aerial operation and placement.

FIP 8380. Hazardous Materials Awareness, Operations and Terrorism. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Hazardous Materials (Hazmat) course is designed to give the candidate the knowledge needed to identify an incident involving hazardous materials and the skills required to perform limited hazardous materials response operations effectively and safely. The course also includes elements of terrorism and its relationship to a hazardous materials incident, including its potential impact to both the community and environment. Upon completion of the course the successful student should be able to identify and respond to a variety of incidents involving hazardous materials.

FIP 8500. Emergency Rescue Technician. 0.0 Hours. Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover eighteen disciplines of becoming an emergency rescue technician as outlined by the North Fire and Rescue Commission on April 1, 1998.

FIP 8501. Emergency Rescue Technician = General. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Emergency Rescue Technician - General this course will deal with the structure, operations and rules and regulations related to rescue operations. The course will also enable the student to write a basic rescue report.

FIP 8502. Emergency Rescue Technician - Communications. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
The student will demonstrate the receiving and processing of various types of communication and demonstrate the proper use of communications equipment.

FIP 8503. Emergency Rescue Technician - Incident Command. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present an overview of the incident command system and demonstrate and define the proper roles during an emergency incident.

FIP 8504. Emergency Rescue Technician - Fire Extinguishers. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the various types of fire extinguishers, their proper selection and use and allow the student to have actual use of a fire extinguisher on a fire.

FIP 8505. ERT - Lifts, Carries, Drags & Modified Stretchers. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will demonstrate the proper use of lifts, carries and drags to remove a victim from danger. Students will review and practice on various types of stretchers and other patient transport devices.

FIP 8506. Emergency Rescue Technician - Maintenance. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover review and recommendation for the proper methods and techniques to use and maintain rescue tools and equipment used during a rescue operation.

FIP 8507. ERT - Vehicle Extraction. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present to the student various basic and advanced techniques and procedures used in a wide variety of motor vehicle accident situations.

FIP 8508. ERT - Ropes & Knots. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the student in the proper methods and techniques as related to ropes and knots used during rescue operations.

FIP 8509. ERT - Low & High Angle Rescue. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present to the student the information regarding the proper selection of tools and techniques to be used during below ground and high angle rescue operations.

FIP 8510. ERT - Rappelling and Ascending a Fixed Line. 0.0 Hours. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train the student in the proper techniques and repelling rescue operations. Safety procedures will be paramount during this class. All students will participate in rappelling and ascending operations.

FIP 8511. Emergency Rescue Technician - Ladders. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the various types of ground ladders and their use during rescue operations. Students will be trained in their use, setup, cleaning and other inspection and maintenance of ladders.

FIP 8512. ERT - Rescue Rigging. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will detail the proper use of ropes and other related rescue rigging equipment used during rescue operations. This course will involve the setup and use of such equipment.

FIP 8513. ERT - Self-Contained Breathing Apparatus. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover all aspects of the proper use and operations of scuba’s. This will include proper donning, cleaning and maintenance as well as the care and use of the scuba.

FIP 8514. ERT - Specialized Rescue Operations. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will deal with specific rescue operations such as high rise rescue, mountain and wilderness rescue as well as other unusual and special rescue situations.

FIP 8515. ERT - Water Rescue. 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
1. The Water Technical Rescue candidate, given the appropriate equipment, shall correctly demonstrate basic shore-based rescue techniques to include Talk, Reach, and Throw. 2. The Water Technical Rescue candidate, given the appropriate PPE and other swimming aids, shall demonstrate the correct donning and use of their PPE, and any other swimming aids necessary to safely enter and swim a designated water course. 3. The Water Technical Rescue candidate, given the appropriate equipment and PPE, shall correctly explain and demonstrate the posturing techniques for rescuers and victims that help retain body heat and slow down the onset of hypothermia. 4. The Water Technical Rescue candidate, given the appropriate equipment and PPE, shall correctly explain the purpose of and demonstrate the defensive swimming posture, the offensive swimming posture, and ferry angle-crossing posture.
FIP 8516. ERT - Land Search Rescue. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the techniques and procedures to be used in the operation of land search missions. The course will include information on grid techniques, sectoring, map reading and personnel management.

FIP 8517. ERT - Air Transporation. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the methods and procedures used for transport and packaging of victims for transport by aircraft to a medical facility.

FIP 8518. ERT - Hazardous Materials Operations. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover the elements of hazardous materials as it relates to awareness and operations level issues.

FIP 8519. Emergency Rescue Technician - Safety. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review and detail the safety procedures and methods to be used during all types of rescue operations.

FIP 8520. ERT - Bridge Course. 0.0 Hours. Class-38.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will serve as the bridge course between the previous BRT level certification and the new ERT certification. This course is required if a person has not completed all aspects of the previous BRT and ART program.

FIP 8521. Vehicle Extraction Power Tools. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review the use and application of air, electrical and hydraulic power tools for rescue extraction. The course will detail the various tools, explain their uses and application and demonstrate proper safe techniques.

FIP 8522. Telpher Systems I. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the use and set up of high line rescue ropes. Some applications of a telpher system would include rescue work in a ravine, off a mountain slope or in a high angle rescue situation. The course involves the use of ropes, riggen systems and various safety devices.

FIP 8523. Ladder Rigging. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course details the use of ladders in rescue operations and specifies safe methods to use various ladders for rescue functions. It includes techniques for securing, raising and lowering of ladders to access victims.

FIP 8533. Nc Emergency Management Incident Command System. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
The Emergency Management Incident Command System course is designed to provide the student with basic information about incident command systems consisting of primary functions, management by objectives, unity and chain of command, transfer of command, organizational flexibility, unified command, span of control, common terminology, personnel accountability, integrated communications, resource management and charting action plans.

FIP 8535. Swift Water Rescue Technician - Unit I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an intensive 30-hour course, designed to cover fundamental water rescue information as well as technical rope applications. Certification will be given by Rescue 3 International and meets NFPA 1670. This course will be recognized by the NC Fire/Rescue Commission/Office of State Fire Marshal toward Rescue Technician Certification, water rescue section, provided the test for Rescue Technician Water Rescue is given and passed.

FIP 8550. Urban Search and Rescue. 0.0 Hours. Class-100.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a 100 hr. nationally recognized class for qualification Urban Search and Rescue to include but not limited to: search of live victims from collapsed buildings, trapped in automobiles, buses, high rise structures, and in residences. Participant skills to include the gaining of expertise in extrication, cribbing, stabilization and moving of large concrete debris using hand labor, using of specialized tools. Participants must be capable of using heavy tools and lifting heavy loads. They also must be able to don and wear personal protective clothing during simulated rescue training.

FIP 8551. Urban Search and Rescue. 0.0 Hours. Class-120.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide training in the skills and techniques required for Urban Search and Rescue (USR). Course topics may include but are not limited to: search for live victims trapped in collapsed buildings, high rise structures and residences and in automobiles, buses and other vehicles. Participants will gain expertise in the skills required for use in extrication, cribbing, stabilization, moving large concrete debris using hand labor, and use of specialized tools. Participants must be capable of using heavy tools, lifting heavy loads and be able to don and wear personal protective clothing during simulated rescue training. Note: For this course to meet certification requirements it must be taught by FEMA qualified instructors.

FIP 8552. Fire Department Orientation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable the firefighter to become aware of the basic and advanced operations of the department and understand their position in the organization from a basic and advanced detailed perspective. Course topics will also include the review of basic and advanced safety regulations and the firefighter responsibility to comply with those regulations, the review of the elements of a basic and advanced departmental safety program and a review of the basic and advanced hazards related to fire protection.

FIP 8554. Fire Behavior. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student to complete the objectives related to fire behavior for Firefighter I and II.

FIP 8555. Portable Fire Extinguishers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the firefighter candidate with the proper use of portable extinguishers and the demonstration of the actual extinguishment of a Class A and B fire.

FIP 8556. Personal Protective Equipment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The firefighter candidate will be presented the function of each article of protective equipment, the leading causes of death of firefighters, and the hazardous environments requiring use of protective equipment. In addition, there is a great deal of information covering the SCBA and its use.

FIP 8557. Forcible Entry. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will enable firefighter candidates to demonstrate their ability to force entry into a structure using varied tools and the maintenance of this equipment.

FIP 8558. Ventilation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student to complete all objectives related to ventilation for Firefighter Levels I and II.
FIP 8560. Ladders. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course presents the firefighter candidate with the different types of
ladders and the use of each of these ladders.

FIP 8561. Fire Hose, Appliances and Streams. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will train the student in all objectives related to fire hose,
appliances, and streams in compliance with Firefighter Levels I and II.

FIP 8565. Overhaul. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course will cover all objectives related to overhaul for Firefighter I and
II.

FIP 8568. Water Supplies. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0.
This course meets all requirements for Firefighter Levels I and II for water
supplies objectives.

FIP 8610. Educator I: Basic. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0.
Work-0.0
This course will give a basic overview of the duties and responsibilities of
the position of educator level I and describe how the work of the position
is completed in a typical fire department. The student shall demonstrate
the ability to coordinate and deliver community fire and injury prevention
programs.

FIP 8611. Educator I: Education. 0.0 Hours. Class-12.0. Clinical-0.0.
Lab-0.0. Work-0.0
During this course the student will be trained how to select educational
materials will present a prepared program and utilize multiple presentation
methods given prepared program for various audiences. They will also
demonstrate how to distribute educational information and how to work in
cooperation with local media personnel.

FIP 8612. Educator I: Adminstration. 0.0 Hours. Class-12.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will review and document various fire and life safety
educational programs, describe various formats, prepare reports,
and discuss time management or organizing skills. Information will be
presented on how to develop and maintain a work schedule and how to
arrange meetings present ations and events to reduce conflicts.

FIP 8613. Educator II: Planning and Development. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will detail methods and procedures to be used to establish
public fire education and life safety prevention programs based upon local
loss and injury data. Students will learn how to implement an evaluation
program, how to prepare a funding proposal, and how to use human and mater-
ial resources to deliver programs.

FIP 8614. Educator II: Education. 0.0 Hours. Class-12.0. Clinical-0.0.
Lab-0.0. Work-0.0
The purpose of this course is to train individuals in how to develop
educational materials based upon an identified issue or local concern;
how to develop a detailed lesson plan; and how to design and present the
program to an audience.

FIP 8615. Educator II: Administration. 0.0 Hours. Class-12.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will train an individual how to prepare a budget request costs.
It will train the student in the details of the budget process as it related to
fire and injury prevention programs.

FIP 8616. Educator III: Planning and Development. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train personnel in how to develop a fire and life safety
education program using the systematic planning process. They will
become familiar with program issues and administration to include political
and the use of the cost/Benefit analysis method.

FIP 8617. Educator III: Education. 0.0 Hours. Class-12.0. Clinical-0.0.
Lab-0.0. Work-0.0
This students will learn to create fire and life safety education materials
that relate to local issues. They will learn to create training and awareness
programs to meet local identified fire and life safety needs. They will learn
how to create a comprehensive report on programs and how to develop an
evaluation instrument to measure outcomes of program.

FIP 8618. Educator III: Administration. 0.0 Hours. Class-12.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will detail methods and procedures on how to create fire
and life safety goals and objectives, mission statements, and review loss
statistic so that goals are consistent with the organization's mission.

FIP 8628. Rescue Equipment - Torches. 0.0 Hours. Class-33.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will allow the student to be exposed to both new and existing
torches used in cutting and specialized rescue operations. Emerging new
technology and techniques in the field of rescue cutting torch use will
be discussed and displayed. Upon completion of the course the student
should be able to identify and operate different types of rescue cutting
torches to a high degree of proficiency as required in rescue operations.

FIP 8700. Aircraft Fire Protection Speciality. 0.0 Hours. Class-96.0.
Clinical-0.0. Lab-0.0. Work-0.0
This is a series of courses allowing a student to complete a specialty in
aircraft fire protection.

FIP 8701. Initial Airport Firefighter Training. 0.0 Hours. Class-48.0.
Clinical-0.0. Lab-0.0. Work-0.0
This program provides in-depth aircraft rescue and firefighting training in
preparation for assignment to an airport fire department. Program satisfies
needs of far 139. 319.

FIP 8704. Fire Department Accident Investigation. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare chief officers with practical training in
proper methods and procedures to follow in investigating and documenting
any type of accident or injury that may occur in a fire department
operation.

FIP 8705. Area Fire/Rescue School I. 0.0 Hours. Class-14.9.
Clinical-0.0. Lab-0.0. Work-0.0
This is a 2-day fire rescue course program for training at the area or
regional level. Content varies according to local need and requests.

FIP 8707. Liability in the Fire Service. 0.0 Hours. Class-14.0.
Clinical-0.0. Lab-0.0. Work-0.0
This class will educate the student in various aspects of legal liability of the
fire service. It will cover all aspects of related law and review recent cases.

FIP 8708. Home Fire Safety I. 0.0 Hours. Class-14.0. Clinical-0.0.
Lab-0.0. Work-0.0
This class will train fire service personnel in the proper methods and
procedures to use in conducting home fire safety training and checks for
residential structures.
FIP 8709. Fire Dept Operations in Sprinkled Bldgs. 0.0 Hours. 
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review proper methods and procedures to be used by fire department personnel when responding to and containing fires in sprinklered buildings.

FIP 8710. Live Fire Training Specialist Line. 0.0 Hours. Class-24.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This is specialized training that qualifies the student to conduct live burn training. This course is operated mainly by the North Carolina Fire & Rescue Division of the NC Department of Insurance Staff.

FIP 8711. Self Contained Breathing Apparatus. 0.0 Hours. Class-50.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This is a specialist class designed to allow the student to be a specialist in the area of SCBA. This is an advanced course.

FIP 8712. Positive Pressure Ventilation. 0.0 Hours. Class-14.0. 
Clinical-0.0. Lab-0.0. Work-0.0
The purpose and tactical priorities of positive pressure ventilation are detailed.

FIP 8713. Vehicle Fires I. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. 
Clin-0.0. Work-0.0
This is a course which trains fire personnel in the proper methods to attack and extinguish various vehicle fires.

FIP 8714. Live Structural Burn Training. 0.0 Hours. Class-8.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This class involves the student participating in a live burn of a structure for realistic fire service training. All training should be conducted in accordance with NFPA 1403.

FIP 8715. First Responder (Medical) Certification. 0.0 Hours. 
Class-65.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an extensive course which allows for the fire department personnel to be qualified as a first responder. This course is approved by NC OEMS and the local county EMS director.

FIP 8716. Telecommunicator Certification Training. 0.0 Hours. 
Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a course designed to train emergency dispatch person nel on proper methods and procedures to obtain certification as a telecommunicator.

FIP 8717. Preparing for an ISO Inspection Fire Service. 0.0 Hours. 
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review all the factors in the ISO Public Protection. Rating for cities and fire districts. This course will allow you to improve the representation of the department for maximum credit, possibly lowering insurance premiums for property owners.

FIP 8718. NC Fire Protection Law. 0.0 Hours. Class-14.0. Clinical-0.0. 
Lab-0.0. Work-0.0
This course reviews all aspects of the NC Fire Protection Law at the county and municipal level.

FIP 8719. Private Fire Protection Systems. 0.0 Hours. Class-19.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This course will cover purpose and function of all alarm-receiving instruments and personnel-alerting equipment provided in fire stations, identify traffic control devices installed in fire stations to facilitate response of apparatus; define all five alarm signals--including multiple alarm and special signals.

FIP 8720. Scuba Repair and Maintenance. 0.0 Hours. Class-14.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This course will train personnel into the proper methods and procedures to be used to repair various scuba equipment.

FIP 8721. Pre-Fire Planning I. 0.0 Hours. Class-29.0. Clinical-0.0. 
Lab-0.0. Work-0.0
This course is designed to prepare the firefighter for developing pre-fire surveys and a workable plan.

FIP 8723. Railroad Emergencies I. 0.0 Hours. Class-14.0. Clinical-0.0. 
Lab-0.0. Work-0.0
This class covers the aspects of rail incidents for emergency responders. The variety of containers on railroad cars are examined and includes the placard system used in product identification.

FIP 8724. Large Diameter Hose Applications. 0.0 Hours. Class-14.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for persons using, planning to use, or specifying Large Diameter Hose. Urban, suburban and rural hands-on formats will be used. NFPA standards and LDH safety will be covered.

FIP 8725. Mobile Water Supply I. 0.0 Hours. Class-14.0. Clinical-0.0. 
Lab-0.0. Work-0.0
This course will detail all aspects of the provision of mobile water supply to rural fire departments.

FIP 8726. Terrorism: Problems and Responsibilities. 0.0 Hours. 
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course details the various issues and problems that are encountered. From a fire department and rescue perspective, during a terrorist attack.

FIP 8727. Fire Operations and High Rise Buildings. 0.0 Hours. 
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review special problems and challenges encountered during high rise fire operations.

FIP 8728. Special Topics: Fire and Rescue. 0.0 Hours. Class-40.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This course will allow students to be exposed to new and emerging issues in fire and rescue.

FIP 8729. General Practices: Fire and Rescue. 0.0 Hours. Class-14.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This training will consist of general fire and rescue training dealing with basic fire and rescue principles of operations. This course would serve as introductory and/or refresher training. This course would not lead to any fire or rescue certification.

FIP 8731. Technical Rescuer Victim Management Rescue. 0.0 Hours. 
Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the Technical Rescuer with the knowledge, skills, and ability to satisfy the requirements of Chapter Ten (VMR) of NFPA 1006: Standard for Technical Rescue Professional Qualifications. Classes included in this course are: Rescue Operations for VMR, Vehicle Anatomy and New technologies, Stabilization and Extrication techniques, Bus and Machinery, and Victim Management.

FIP 8815. Technical Rescuer - General. 0.0 Hours. Class-440.0. 
Clinical-0.0. Lab-0.0. Work-0.0
This course will present the Technical Rescuer with knowledge, skills and ability to perform rescues in various types of environments and implement technical rescue skills to effect a rescue. Topics include rescue situations in structural and wilderness settings. Upon completion of the course, successful students should be proficient in the operations necessary to mitigate various rescue scenarios.
FIP 8816. Technical Rescuer - Vehicle and Machinery Rescue. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the Technical Rescuer with the knowledge, skills and ability to perform rescues in various types of environments and implement technical procedures to effect a rescue. Topics include types of entrapments, mechanisms of injury, potential hazards, successful strategies and firefighter safety. Upon completion of the course, successful students should be proficient in the operations necessary to mitigate various rescue scenarios.

FIP 8817. Technical Rescuer-Ropes. 0.0 Hours. Class-75.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the Technical Rescuer with the knowledge, skills, and ability to satisfy the requirements of Chapter Six (Ropes) of NFPA 1006: Standard for Technical Rescue Professional Qualifications. Classes included in this course are: Rescue Operations for Rope, Anchors, Mechanical Advantage Systems, Fixed Rope Systems, Lower and Raises, High Lines, and Victim Management.

FIP 8819. Technical Rescuer - Ropes. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present the Technical Rescuer with knowledge, skills and ability to perform rescues in various types of environments and implement technical rescue procedures to effect a rescue. Topics include rescue operations, ropes, knots, anchors, raises and lowers, victim management and scene safety. Upon completion of the course, successful students should be proficient in the operations necessary to mitigate various rescue scenarios.

FIP 8820. Surface Water Rescue Technician. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to fulfill the elements of the NFPA 1006 (Rescue Technician Professional Qualifications / Surface Water Rescue Standard). The course will cover the five aquatic environments that are most commonly faced in the state of North Carolina including Surf and Tidal waters, Flood waters, Swift waters, Still or Standing waters and Ice. The course will consist of both classroom and hands-on practical skills applications. This class will be restricted to personnel with the following types of certified training: ERT, Firefighter I or II and completion of a recognized High-Angle School, and other recognized water training courses.

FIP 8828. Flammable Liquid Fire Fighting. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with preparing the firefighter to respond and contain flammable liquid fires such as hydrocarbons.

FIP 8831. Helicopter Landing Operations. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will train fire and rescue personnel in the proper methods and procedures to be used to properly support and conduct safe landings of helicopters for casualty evacuations, disaster flyovers, and emergency situations.

FIP 8832. Survival: Field Maintenance AI-30. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
During this class the overall procedures in the maintenance and overhaul of the survivair xl-30 unit. Inspecting all equipment at yearly intervals for substandard performance and maintaining maintenance records.

FIP 8839. Fire Brigade Training I. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides training to industries, correctional institutions and others agencies on the use of in-house fire protection equipment.

FIP 8847. Emergency Response: Industry. 0.0 Hours. Class-29.0. Clinical-0.0. Lab-0.0. Work-0.0
During the course of instruction, the response team will be introduced to fire behavior concepts, portable fire extinguisher and their use and proper evacuation procedures. Also included in this course will be cpr, first aid, lifting procedures and osha regulations concerning haz mat and infection control.

FIP 8848. Industrial Emergency Response Team Training. 0.0 Hours. Class-84.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a combination of the first responding training course, hazardous materials awareness level, and introduction to fire suppression. It provides members of emergency response teams in industrial setting with the information needed to respond to common incidents.

FIP 8850. Pesticide Spill and Control. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
During this class the students are given information on the very increasing problem of pesticide spill and fire control. This course was developed by the national fire academy to address the pesticide problem. Students are given material on how to recognize hazardous pesticides, how to utilize pesticides, resources and what pesticides have on pollution.

FIP 8853. Fire Management for the New Officer. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to assist candidates with their management responsibilities for future promotion to Fire Captain. It consists of City of Charlotte guidelines and Charlotte Fire Department General Orders.

FIP 8859. Mantracking Practices I. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a specialty search and rescue class that teaches procedures to be used in a search for a lost person. It teaches tracking procedures.

FIP 8860. Wilderness Rescue. 0.0 Hours. Class-13.0. Clinical-0.0. Lab-0.0. Work-0.0
This class trains personnel on methods and procedures to be used in a remote wilderness rescue operation.

FIP 8861. Chlorine Safety. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Covers the basics of an accidental leak of chlorine. How to detect and plug a leak are discussed. Different size chlorine containers are reviewed.

FIP 8863. Wildland/Urban Interface Fire Protection. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course exposes students to urban interface fire protection, fire organization and behavior, suppression methods, strategies and tactics, and safety concepts in forest fire suppression situations encountered by initial attack units.

FIP 8872. Helicopter Landing Operations. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
A helicopter landing briefing. Students, learn the requirements of landing a helicopter at an unplanned site.

FIP 8874. Building Collapse I. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
Covers the causes of building collapse, how fire affects the structural integrity of a building, and the sign of a potential failure.

FIP 8875. Railway Emergencies for Emergency Personnel. 0.0 Hours. Class-19.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will cover information on hazardous material common in rail transportation: detecting the presence of a hazmat, placarding, shipping papers, hazard classes, identification numbers, train consist, key trains and key routes, incident reporting and notification.
FIP 8880. Fire Cause & Investigation (Fire College). 0.0 Hours.
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers legal aspects of fire and arson investigation, determining fire causes and origin, care management and collection and preservation of physical evidence.

FIP 8881. Technical Rescuer-General-Rescue Operations. 0.0 Hours.
Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer with the requirements for proper site operations, victim management, and maintenance for all of the rescue disciplines which include rope rescue, confined space rescue, trench rescue, structural collapse, vehicle and machinery rescue, surface water, swift water rescue, and wilderness rescue.

FIP 8882. Technical Rescuer-General-Personal Protective Equipment. 0.0 Hours.
Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will introduce to the Technical Rescuer the need for and use of personal protective equipment to enable the rescuer to perform his/her duties in a safe and responsible manner. Physical characteristics of rescuers, stress, endurance, and the limitations of equipment will be discussed.

FIP 8883. Technical Rescuer-General-Rescue Equipment. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will introduce the Technical Rescuer to the operation and function of various tools and equipment commonly used in rescue operations. This course will also present procedures for care, inspection, and maintenance of personal protective equipment, tactical equipment, and apparatus. The value of periodic inspection and maintenance to reduce the chances of unexpected equipment failure, performance failure, disabling injuries, and fatalities will be discussed.

FIP 8884. Technical Rescuer-General Helicopter Transport. 0.0 Hours.
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present to the Technical Rescuer general operating and safety guidelines when working with helicopters at emergency scenes for the protection of on-scene emergency providers, flight crews, and the civilian population.

FIP 8885. Technical Rescuer-General-Rescue Rigging. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will present to the Technical Rescuer the proper use of ropes and other related rescue rigging equipment used during rescue operations. This course will involve the setup of various ladder and timber configuration for technical rescues.

FIP 8886. Technical Rescuer-General-Ropes. 0.0 Hours.
Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present to the Technical Rescuer safe and effective methods of rescue in elevated and below grade environments using ropes, knots, and rope related equipment. Mechanical advantage, anchors, anchoring techniques, and stress loads will be covered.

FIP 8887. Technical Rescuer-General-Victim Management. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present to the Technical Rescuer the proper method for the safe movement of patients from a hazardous situation to one of safety. Various lifts, carries, drags, and stretchers will be discussed with the safety and well being of patients and rescuers given priority. This class will also introduce various search methods used for the rescue of individuals in situations of being lost.

FIP 8888. Victim Management Rescue - Rescue Operations. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer the hazards of vehicle rescue operations, ICS, access, disentanglement, extraction, and the post rescue phases of vehicle rescue.

FIP 8889. Victim Management Rescue-Vehicle Anatomy. 0.0 Hours.
Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer vehicle anatomy and introduce new technologies in vehicle devices which present hazards for rescue personnel. Topics included in this class are: vehicle construction, crumple zones, bumper systems, air bags, side impact protection systems, new vehicle innovations, propulsion systems, passive safety systems and active safety systems. Suggestions on how to cope with innovative vehicles to safely mitigate a modern vehicle rescue will also be discussed.

FIP 8890. Victim Management Rescue - Stabilization Extricate. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer the steps to stabilize a vehicle on four wheels, a side-resting vehicle and a roof-resting vehicle. The Technical Rescuer will also be introduced to procedures for the following: opening a jammed door using a hinge attack and a latch attack, how to create a third door, total door removal, sideway removal, working with a collapsed roof, creating the roof flap, C-B-A roof pillar cut, procedures for total roof removal, trunk tunneling, through the floor access, how to displace a steering column, dash roll, removal and/or relocation of pedals, and how to remove and/or relocate seats.

FIP 8891. Victim Management Rescue - Bus & Machinery. 0.0 Hours.
Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer construction style and use of school, mass transit, and tour buses. The class will offer additional information on how to organize size-up, gaining access, vehicle stabilization, enlarging openings, disentanglement of victims, extraction techniques, and post rescue operations. The Technical Rescuer will be introduced to methods to control electrical, fuel, fire, traffic, A/C, and engine hazards.

FIP 8892. Victim Management Rescue - Victim Management. 0.0 Hours.
Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This class will present the Technical Rescuer with proper methods for the movement of patients from a hazardous situation while focusing on the safety and well being of the patients and rescuers. Stabilizing the situation, gaining access, packaging, and removal patients from vehicle and machinery rescue incidents will be emphasized in this course.

FIP 8901. Hazardous Materials: Technician. 0.0 Hours.
Class-95.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an advanced course that requires the student to be at operations level certification. The course will train the individuals to the technician level in compliance with NFPA 472 standards and the NC fire rescue commission.

FIP 8902. Hazardous Materials: Specialist. 0.0 Hours.
Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a comprehensive course dealing with one or more specialty areas such as tank cars. Flammable liquids, and etc each area is a different specialty.
Focused Industry Training (FIT)

FIT 7000. 24 Hr HazWOPER Training. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for hazardous waste operation workers as described by 29 CFR 1910.120 who are unlikely to be exposed to hazards over permissible exposure limits or where respirators are not necessary. Topics of discussion include applicable regulations, chemical and physical hazards, personal protective equipment, decontamination and emergency response.

FIT 7001. Master Planning Test Review Seminar. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the students for APICS certification in Master Planning. The instructor will provide test taking advice and lead participants in discussion of course content focused on a sample survey and review of answers. Students may bring any APICS participant guides as reference. Sample test information and handouts provided at no charge.

FIT 7002. Detailed Scheduling Test Review Seminar. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the students for APICS certification in Detailed Scheduling and Planning. The instructor will provide test taking advice and lead participants in discussion of course content focused on a sample survey and review of answers. Students may bring any APICS participant guides as reference. Sample test information and handouts provided at no charge.

FIT 7003. Execution and Control Test Review Seminar. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the students for APICS certification in Execution and Control of Operations. The instructor will provide test taking advice and lead participants in discussions of course content focused on a sample survey and review of answers. Students may bring any APICS participant guides as reference. Sample test information and handouts provided at no charge.

FIT 7004. Osha 10 Hr. General Industry Outreach. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce the student to workplace health and safety practices and Standards of the Occupational Health and Safety Administration (OSHA). Students attending the entire course will receive their "OSHA 10 hour card" for worker safety training in General Industry.

FIT 7005. 8-hr HAZwoper Refresher. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

FIT 7006. Mistake-Proofing/Failsafing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introductory course in the LEAN manufacturing family of topics instructing in the use of mistake-proofing and failsafing tools.

FIT 7007. Kaizen Train the Trainer. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed for people-learners who train groups in a business context, this 3-day workshop will allow you to redesign any course, workshop, seminar or training package.

FIT 7008. Basic Quality Tools. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
An introductory quality course providing capability in use of nine quality and facilitation tools.
FIT 7009. Secrets of Breaking Par in your Manufacturing Game. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Whether wringing out waste in your golf game or in your manufacturing opportunity, investing in the proper training, tools and methods can move you to the top of the leaderboard. CPCC will share industry examples of methods used to increase quality, customer satisfaction productivity and cost while at the same time improving employee satisfaction.

FIT 7010. Ac Motor Drive. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

FIT 7011. Lean Manufacturing. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Experience, first-hand, the power of Lean Manufacturing in this popular and fun 8-hour course and factory simulation developed by NCSU Industrial Extension Service. Learn, then apply principles and practices immediately in your organization to reduce waste and remove non-value-added activities. Using the factory simulation, you will work with others in a fixed-time period to assemble a tube product. Discussion after each session teaches you the eight wastes in production, how to balance the line. This course is especially relevant to front-line leaders, hourly production employees and work teams.

FIT 7012. Analytical Troubleshooting Overview. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Provides organizations with a step-by-step approach to developing skilled troubleshooters. It is specifically designed to teach supervisors, team leaders, line-level operators, maintenance supervisors, team leaders, line-level operators, maintenance supervisors and technicians how to find the root cause of problems, and then take actions to fix them.

FIT 7013. ISO 14001 Executive Overview. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This half day workshop provides management decision-making information regarding the impact of implementing an ISO 14001 environmental management system. ISO 14001 is the voluntary standard for companies to establish an Environmental Management System (EMS) through a systems approach using continuous improvement principles. ISO 14001 incorporates the Plan-Do-Check-Act Cycle of Management and is very similar to ISO 9001. This overview course will present essential information on the 17 elements of the standard and will provide interactive exercises on a variety of ISO 14001 facets. Common non-conformance areas will be discussed as well as a typical EMS development and timeline.

FIT 7014. Six Sigma Green Belt. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This seminar is designed for individuals who want to become certified as a Six Sigma Green Belt, and who want to help build a Six Sigma quality organization. Participants will obtain a clearer picture of the role of Six Sigma Green Belts and will have a better understanding of the benefits of becoming a Six Sigma organization.

FIT 7015. Analytical Troubleshooting. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Analytic Trouble Shooting provides organizations with a step-by-step approach to developing skilled troubleshooters. It is specifically designed to teach supervisors, team leaders, line-level operators, maintenance workers, and technicians how to find the cause of problems, and then take action to fix them. Equipped with these skills, employees learn how to prevent problems, improve quality and productivity, and make recommendations to go to the heart of continuous improvement.

FIT 7016. Geometric Dimension and Tolerancing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an introduction to basic geometric dimensioning and tolerancing principles as stated in ASME standard Y14.5M - 1994. Topics include symbols, annotation, theory, and applications.

FIT 7017. Kepner Fourie. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The KEPNERandFOURIE thinking technology gives people the opportunity to revolutionize and sharpen their thinking skills. The KEPNERandFOURIE thinking technology captures intuitive, rational and creative thinking into practical, user-friendly approaches that provide companies with basic building blocks to improve the collective thinking ability of the whole company.

FIT 7018. Effective Warehousing 101. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This Warehouse 101 discovery seminar is designed to provide the skills and experience needed for participants to successfully understand their role in warehouse operations. This training session will combine topic knowledge and skills as well as training techniques that will help the participants successfully learn, process, and assimilate what they hear, see and experience, so that they can improve their knowledge, skills and attitudes, and then apply what they have learned to positively impact their career, enhance customer service, and improve warehouse operational capabilities.

FIT 7019. CNC Graphics Programming and SolidWorks. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces computer numerical control graphics programming and concepts for machine center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center.

FIT 7020. Blueprint Reading. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing coursework, student will be able to understand the basic principles of blueprint reading and sketching.

FIT 7021. Process Mapping Seminar. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
In this one-day seminar, production employees will explore the basics of process mapping and explore "real life" examples from their production environment.

FIT 7022. Process Safety Management. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Each course will present an overview of the OSHA, 29 CFR 1910.119, Process Safety Management (PSM) for Highly Hazardous Chemicals regulatory elements that include: employee participation, process safety information, process safety analysis, operating procedures, training, contractors, pre-start-up safety review, mechanical integrity, hot work permits, management of change, incident investigation, emergency planning and response, compliance audits, and trade secrets.

FIT 7023. Programming for PanelView Plus. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a skill-building course that provides students with the skills necessary to develop RSView Machine Edition (ME) applications that run on the next-generation PanelView terminals.
FIT 7024. PSLogix 5000 Project Development. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
Building on students' knowledge of common controller terms and operation and their experience with basic ladder logic programming, this course presents a deeper understanding of project development tasks, including organizing tasks and routines, organizing controller data, configuring modules, and sharing data. When developing and testing their projects, students will use serial, EtherNet/IP, and ControlNet networks for online communications. Students will also multicast input and output devices, share data between controllers, and control remote I/O.

FIT 7025. Troubleshooting Electrical Controls. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
The mission of this one-day class is to provide enough information in one day to enable even those with no previous background in this subject to gain a firm understanding of control circuits and how to troubleshoot them using the electrical drawings as a roadmap.

FIT 7026. Mechanical Overview for Fanuc M410i. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This one day lecture course provides an introduction to the FANUC M410i in a classroom environment. The mechanical details and drive mechanisms of the robot are described in detail. This class emphasizes scheduled preventive maintenance including periodic inspections and lubrication procedures.

FIT 7027. CNC Graphics Programming Turning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry.

FIT 7028. CNC Graphics Programming Milling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces computer numerical control graphics programming and concepts for machine center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center.

FIT 7029. CNC Programming and Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the manual programming, setup, and operation of CNC machining centers.

FIT 7030. Precision Measurement. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the care and use of precision instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments.

FIT 7031. Internal Auditor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide the participant with an in-depth knowledge of the elements of ISO 14001 as well as the fundamentals of auditing.

FIT 7032. Managing Change in a Production Environment. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course addresses management of both personal and operational changes. 1) Undergoing change, both positive and negative, will have physiological and behavioral impact on individuals involved in the change. Recognizing important effects change has on individuals, learning methods to manage change perception, and motivating positive participation can yield highly effective outcomes. 2) Change in production operating conditions is an important element of driving continuous improvement, but change without effective control will introduce variation leading to safety, quality, delivery, and cost problems. Good change management processes reduce risk and enhance probability of success.

FIT 7034. Forklift Training. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Each student will better understand the regulatory issues of operating a powered industrial lift truck, the types of lifts and the importance of the safe operation of the vehicle.

FIT 7035. Electromagnetic Testing Level II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Course will cover electromagnetic theory and generation of eddy currents, including electrical factors affecting test procedures. The course will cover frequency, coupling, field strengths, and test coil sizes and shapes. Selection of equipment and test parameters with a variety of equipment will be covered with hands on calibration to known standards.

FIT 7036. Bagger Machine. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers how to set the timing on the GT-4R Bagger, explains how the encoder and PLC work together, and the operation of the Allen Bradley PLC (programmable Logic Control).

FIT 7037. Die Penetrant. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
NDE Formal Level I/II Training in the Liquid Penetrant Inspection method. Meeting the recommended requirements on SNT-TC-1a, 2006. Qualification and certification practice of ASNT. Successful completion of course will require a grade 75% or higher on the end of course exam.

FIT 7038. Forklift Scheduled Maintenance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to cover all aspects of a thorough maintenance program for the types of equipment employed at the facility. Emphasis will be placed on all checks and adjustments, lubrications, and fluid levels. Topics related to all models will also be discussed. The course will conclude with hands-on demonstrations and the preventative maintenance of at least one machine.

FIT 7039. Boiler, Ovens and Burners. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers how to effectively use and maintain the bagel oven.

FIT 7040. Advanced WoodWOP Programming. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This advanced programming course takes the experienced WoodWOP 4.xx/5.xx user through a series of programming projects designed to teach upper-level programming techniques. These projects cover complex routing, parametrics, aggregates and the use of specialized subprograms to enhance the machine's basic capabilities. Other topics discussed include importation of DXF files and complex aggregate programming.
FIT 7041. Alpha 6 Wrapper. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The students will be able to set up and operate the CX Alpha 6 and the CSI Intelligent Dual Formost/Fuji High Speed Wrapper to make sure this machine is in perfect timing, including the in-feed CSI conveyor, the film sealers and the end sealers, and the film feed, plus the heat of the sealers. They will know the operation of the Menu Screen and all the icons on the PLC (Programmable Logic Control), also how to program new products and how to program this in the back operation and flash card.

FIT 7042. Basic Chemistry. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a basic chemistry course illustrating selected concepts using relevant client applications.

FIT 7043. PowerFlex 700 Vector Control Drivers. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces real-world maintain and troubleshooting situations into a classroom setting.

FIT 7050. PC-DMIS CAD Basic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is to train beginners on the PC-DMIS.

FIT 7088. Bloodborne Pathogens. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Provide workers with the knowledge to reduce or eliminate the occupational risk to bloodborne pathogens. Employees will develop the necessary behaviors to minimize exposure to potentially infectious materials and bloodborne pathogens. They will understand and follow the steps necessary to prevent contracting a disease.

FIT 7089. Fire Extinguisher. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Like preparing a new product for sale or closing the book on a quarter, preventing a fire - or safely containing one - takes planning. Steps include easily accessible fire extinguishers, proper housekeeping and maintenance, broadly communicated, and practiced, evacuation plans, equipment shutdown, notification of authorities, and familiarity with the type of items that might burn and release toxins. Help your employees understand their role in a fire emergency.

FIT 7090. First Aid/CPR. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the fundamental concepts and practices of First Aid and CPR, this class addresses the methods for delivering prompt and properly administered care. Topics covered include response to routine injuries typically found in the home or workplace, instruction and practice in Cardiopulmonary Resuscitation (CPR).

FIT 7091. Emergency Response to Chemical Spills. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8-hour course will provide participants with an overview of proper procedure and the regulatory requirements involved in responding to and reporting on chemical spills. Through lecture and PowerPoint presentation, instructor will describe initial response, reporting, incident command, response planning, plus cover personal protective equipment and clean-up methods and requirements. Additional time will be allotted for student questions.

FIT 7099. Radio Frequency. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a one-day course designed to introduce the students to the fundamental concepts of very high frequency (HF) product design. Generally, the concepts of HF/Microwave design apply to products that operate with frequencies above 200 to 300 MHz; and up to tens or hundreds of Gigahertz.

FIT 7100. Automatically Programmed Tools. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to the fundamental concepts of Automatically Programmed Tools (APT), a computer program designed to simplify the process of preparing the input data necessary for controlling numerically controlled (N/C) machine tools and other types of N/C devices.

FIT 7101. Basic Machining. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
FIT 7102. Fundamentals of Programmable Controller Systems. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as an introduction to programmable controller systems. You will learn what programmable controller systems are, how they work, and how they can be used to control various processes and machines. In addition, you will receive a thorough introduction to RSLogix 5 or RSLogix 500 software and learn how to interpret simple ladder logic. The course is taught in a hands-on environment, featuring PLC-5 or SLC 500 systems workstations. Where applicable, demonstrations are included to facilitate the hands-on exercises that follow each lesson.

FIT 7103. Introduction to CNC Programming And Operation. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic application. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

FIT 7104. Press Technician Training. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This 40-hour course is equipment-specific technician training for pressmen on the CCI-2D system of a Roland R-700 press. The majority of the training will be hands-on, instructor-led demonstrations and class discussion on troubleshooting techniques and proper set up and operation using measurement and controls, plus maintenance of equipment. The equipment operator's manual will be used in the class.

FIT 7105. Value Stream Mapping. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course trains participants in the value stream mapping process described in the book, "Learning To See". Value stream mapping techniques are taught in the classroom and then applied to value streams that the participants manage. Current and future state maps will be designed and then an action plan will be developed to achieve the future state.

FIT 7106. Six Sigma Awareness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will be given an awareness and general understanding of the Six Sigma methodology to become Six Sigma conversational. This course is designed for those employees who are often referred to as "White Belts" in Six Sigma nomenclature.
FIT 7107. Lean & Green Shopfloor. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a basic course that combines key Green principles for workplace elements (reduce, reuse, recycle) with introductory Lean waste reduction concepts and methods to reduce waste on the manufacturing/warehouse shopfloor.

FIT 7108. Getting to Root Cause. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Too often people try to fix problems by simply addressing surface symptoms - "putting on a Band Aid", taking a widespread shotgun approach to eliminate every possible cause, or acting in crisis management mode and then forgetting to deal with chronic underlying issues. This course provides methods for manufacturing teams to systematically drive to root cause and thus ensure a better and lasting solution to problems.

FIT 7121. 5S System. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The 5S System is the most common technique used in Lean Manufacturing environments. It allows people to take control of their work area by removing unneeded items (Sort), organizing the needed items (Set), practicing good housekeeping (Shine), setting standards for the first 3S's (Standardize), and maintaining the improvements (Sustain). The course uses Productivity Press book. "The 5S System - Participant’s Guide" to show students how to implement the 5S’s while avoiding common "5S Pitfalls" to achieve step level improvements in safety, quality, workflow, and efficiency.

FIT 7200. Basic Assembly Skills. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completing coursework, student will be able to understand and apply different techniques to assembling parts.

FIT 7201. Principles of Industrial Hydraulic. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches maintenance technicians the principles of industrial hydraulics technology. Starting with practical ideas of force, area, pressure, fluid flow rate, cylinder speed, hydraulic motor speed, hydraulic power and hydraulic system heat production, student develop their understanding of how hydraulic powered and controlled machines work.

FIT 7202. Introduction to Solid Modeling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Upon completion, students should be able to use design techniques to create, edit, render and generate a multiview drawing.

FIT 7205. Statistical Process Control. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 1-day course is broken into two segments with the first half to focus on an understanding of capability and deviation plus common process measurement tools. Students will gain an awareness of basic concepts of statistical process control. This segment will include lecture and hands-on activities to demonstrate process control tools including histograms. Student manuals will include reference information and terms as well as practice activities.

FIT 7211. Basic Metrology. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an 8-hour course that introduces the concepts of metrology with instructor demonstration, and hands-on use of common precision measuring instruments.
FIT 7600. Workforce Development Best Practices: Expert OJT. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
What if your best people could quickly and easily pass their skills and knowledge to others in the workforce? What if they could produce job aids, and write step-by-step procedures to share their expertise with fellow workers? Expert OJT is a systematic on-the-job training program designed to make your best performers your best trainers. Attend this “best practices” overview on this unique, focused train-the-trainer program and learn how your organization can capitalize on the knowledge, skills, and abilities of your most important resource -- your people.

FIT 7601. Workforce Development Best Practices: Job Analysis. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Are your company’s job descriptions based upon objective data that accurately and fairly captures the essence of the position? Are you confident that the interview questions you’re asking prospective employees actually relate to the requirements of the job? Attend this session and learn how structured job analysis techniques improve the way you define the tasks and sequences of tasks necessary to perform the job? Legal aspects associated with job analysis will also be covered.

FIT 7602. Solomon Inventory, Purchasing and Billing of Materials. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course begins with an overview of how the Inventory, Purchasing, and Bill of Materials modules work with each other and the financial modules. The course continues with detailed descriptions of the setup, maintenance, and processes in each module. A few of the areas discussed will be creation of bills of materials, how to record production in the system, how to record other inventory transactions, and how to determine what to order and how to order.

FIT 7699. IGEN3 Operator Training. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This three-week course will cover all aspects of operation of the printing equipment, plus equipment safety, document feeding, problem-solving, and data. Methods will be primarily hands-on demonstration and on-the-job practice.

FIT 7700. ISO 9000: 2000 Overview. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Is your company registered to ISO or QS 9000? Maybe you want to use this international quality systems standard to improve your organization’s ability to meet customer requirements. Do you know how the 2000 revision will impact your current registration? This one-day management overview will explore the “whys” of this important standard, plus you’ll learn how ISO tools can impact your bottom line. Content expert will also share up-to-date information on ISO/TS 16949.

FIT 7701. Indoor Scissor Lift Operator Safety. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to OSHA compliance in safe operation of an indoor scissor lift. It will provide the selected individuals as company trainers with the basic skills necessary to communicate with new workers and effectively transfer job skills that will enable the trainees to perform their required duties.
FLI 7028. Command Spanish for Supervising Spanish Speaking Employees. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is a comprehensive treatment of the many issues involved with effective supervising of Spanish-speaking employees. It also includes a small language component that covers greetings, etiquette, compliments, and safety and medical emergencies. No prior knowledge of Spanish is necessary. This cross-cultural training deals with the wide range of issues associated with supervising Spanish-speaking workers with limited command of the English language. It includes such topics as demographics, stereotypes, literacy, education, gender issues, religion, work ethic, safety issues, disciplining workers, health issues, promotion and others.

FLI 7029. Survival Spanish for School Administrators, Teachers & Staff. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is a comprehensive program designed to provide functional Spanish language skills for school personnel who have occasional contact with Spanish-speaking students and visitors. It also includes extensive training for non-Spanish-speaking classroom teachers who have Spanish-speaking children in their classroom. No prior knowledge of Spanish is necessary.

FLI 7030. Command Spanish for Industry, Manufacturing and Warehousing. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0  
SIMW is a comprehensive Spanish language program that provides immediate access to functional language skills for non-Spanish speaking supervisors. The language component utilizes phonetic encoding to address pronunciation of the most important Spanish commands, questions and phrases pertinent to daily interactions between supervisors and workers at industrial sites, manufacturing plants and warehouses. No prior knowledge of Spanish is necessary.

FLI 7031. Command Spanish Community Spanish: A Survival Guide for English Speakers. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is a non-academic, non-grammar based course designed for persons who want an easy and quick way to learn limited amounts of everyday Spanish. The course is divided into three components: Speaking in Spanish; Listening in Spanish; and Cross-Cultural Issues.

FLI 7032. Command Spanish? Doing Business in Latin America. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is an intensive program that addresses two separate but related issues that are absolutely essential for successfully conducting business in Latin America: survival Spanish and cross-cultural training. Utilizing phonetic encoding, participants learn functional Spanish skills to survive in a Latin American setting. In addition, as needed, they are taught to identify and overcome the fifty most common cultural barriers encountered by U. S. business personnel when dealing with Latin Americans. No prior knowledge of Spanish is necessary.

FLI 7033. Command Spanish? Spanish for Automobile Sales and Service. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for the student who has completed Beginning Spanish I, II and III or has had equivalent exposure to the Spanish language. The course will further enable the student to communicate in the Spanish language. Emphasis will be placed on the continued development of speaking, listening, reading, and writing skills. Focus will also be placed on the cultural characteristics of Spanish-speaking countries.

FLI 7034. Intermediate Spanish I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed for the student who has completed Beginning Spanish I, II and III or has had equivalent exposure to the Spanish language. The course will further enable the student to communicate in the Spanish language. Emphasis will be placed on the continued development of speaking, listening, reading, and writing skills. Focus will also be placed on the cultural characteristics of Spanish-speaking countries.

FLI 7035. Command Spanish for Custodial & Maintenance Supervisors. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0  
This program is a comprehensive treatment of the language used by custodial and maintenance supervisors when speaking with employees by providing immediate access to functional language skills for non-Spanish speaking supervisors. The language component utilizes encoding to address pronunciation of the most important Spanish commands, questions, and phrases pertinent to daily interactions between supervisors and Spanish-speaking employees. No prior knowledge of Spanish is necessary.

FLI 7036. Command Spanish for Office Personnel. 0.0 Hours. Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0  
This comprehensive Spanish language program provides immediate access to functional language skills for non-Spanish speaking medical, school and office secretaries and receptionists. The language component addresses the most important Spanish commands, questions and phrases pertinent to secretaries and receptionist work. No prior knowledge of Spanish is necessary.

FLI 7037. Command Spanish - Spanish for Real Estate Agents (contract). 0.0 Hours. Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0  
This program is a comprehensive treatment of the language used by real estate agents when speaking with prospective customers by providing immediate access to functional language skills for non-Spanish speaking individuals. The language component uses encoding to address pronunciation of the most important Spanish questions, and phrases pertinent to interactions between agents and Spanish-speaking customers. Topics include etiquette, introductions, communication strategies, numbers, receiving customers and prospects, interviewing for house needs and preferences, wish lists, financial information and follow-up interview after prequalification and much more. No prior knowledge of Spanish is necessary.

FLI 7038. Command Spanish for Nurseries, Landscaping and Groundskeeping. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This program is a comprehensive treatment of the language used by nurseries, landscape and groundskeeping supervisors. The language component utilizes phonetic encoding to address pronunciation for the most important Spanish commands, questions, and phrases pertinent to daily interactions between supervisors and Spanish-speaking employees. No prior knowledge of Spanish is necessary.

FLI 7116. Command Spanish/Spanish for Construction Site Supervisors. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
This is a comprehensive Spanish language program that provides immediate access to functional language skills for non-Spanish-speaking construction site supervisors. The language component includes the most important Spanish commands, questions, and phrases pertinent to daily interactions between supervisors and workers at construction sites. Upon completion of this program participants will be able to use Spanish to: greet and compliment employees; express numbers, assist with employment and scheduling issues; control safety and medical situations; and issue commands for general and specific construction tasks. No prior knowledge of Spanish is necessary.
FLI 7120. Command Spanish/Spanish for Nursing. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This program prepares non-Spanish speaking nurses to provide medical care and attention to Spanish-speaking patients in hospitals. Upon completion, participants will be able to use Spanish to: greet patients, obtain basic information, obtain vital signs, ask/assist in diagnostic questions, commands and procedures, assist patients with routine in and out of bed procedures, see to patient’s needs and comforts and learn about unique cultural aspects relating to medical care. No prior knowledge if Spanish is necessary. Tuition includes Command Spanish manual and CDs, delivered in class.

FLI 7126. Command Spanish/Spanish for Requesting Personal Information and Data. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a comprehensive Spanish Language program that provides immediate access to functional language skills for non-Spanish-speaking individuals who have a need to acquire specific personal information and data from Spanish-speakers. The language component utilizes phonetic encoding to address the most important Spanish commands, questions, and phrases pertinent to daily interactions. Upon completion, participants will be able to use Spanish to: greet Latinos with initial contact phrases, fill out paperwork, conduct basic interviews, obtain personal information, employment history and financial information. No prior knowledge of Spanish is required. Tuition includes Command Spanish manual and CDs, delivered in class.

FLI 7127. Command Spanish/Spanish for Landscaping and Groundskeeping. 0.0 Hours.
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a comprehensive treatment of the "green industry." SLG provides immediate access to functional language skills for non-Spanish-speaking green industry supervisors. The language component utilizes phonetic encoding to address pronunciation of the most important Spanish commands, questions, and phrases pertinent to daily interactions between supervisors and Spanish-speaking employees. Upon completion of this program, students will be able to use Spanish to: greet and compliment employees; express numbers; assist with employment/scheduling issues; control safety and medical situations; and issue commands for general and specific green industry tasks. No prior knowledge of Spanish is necessary.

Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a non-academic, non-grammar based course designed for persons who want an easy and quick way to learn limited amounts of everyday Spanish that may be used when encountering Latinos in the community. Upon completion, participants will be able to say a few words or phrases of kindness or respect to Latinos they meet in shopping malls, supermarkets, school meetings, parks, churches, restaurants and other public places. Participants will also have a better understanding of the most common cultural differences between Latinos and non-Latinos. No prior knowledge of Spanish is necessary. Tuition includes Command Spanish manual and CDs, delivered in class.

FLI 7132. Command Spanish for Travelers and Business Professionals. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a comprehensive course designed for individuals who have a need or desire to travel to Latin American countries for business or pleasure and need functional language skills to communicate. Upon completion participants will be able to use Spanish to: greet people; engage in etiquette and social niceties; introduce oneself and others; count from 1-20; compliment people, food, drink; order food and drink; get places in a taxi; register in a hotel; make simple purchases; make and receive telephone calls. Tuition includes manual and CD. No prior knowledge of Spanish is required.

FLI 7133. Command Spanish for Real Estate Agents. 0.0 Hours.
Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0
The first of two parts, this program is a comprehensive treatment of the language used by real estate agents when speaking with prospective customers by providing immediate access to functional language skills for non-Spanish-speaking individuals. The language component uses encoding to address pronunciation of the most important Spanish questions, and phrases pertinent to interactions between agents and Spanish-speaking customers. Topics include, etiquette, introductions, communication strategies, numbers, receiving customers and prospects, interviewing for house needs and preferences, wish lists, financial information and follow-up interview after prequalification. Includes book and CD’s delivered in class. No prior knowledge of Spanish is necessary.

FLI 7134. Command Spanish : Spanish for Real Estate Agents II. 0.0 Hours.
Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0
This second of a two part series, this is a comprehensive treatment of Spanish used by real estate agents when speaking with prospective customers by providing immediate access to functional language skills for non-Spanish-speaking individuals. Topics included: Prep for property visits, engaging in “sales talk” about the property, engaging in the offer process, giving prospective customers the sellers response, discussing report results, discussing financial issues prior to closing, welcoming prospects to their new home and giving directions. The language component uses encoding to address pronunciation of the most important Spanish commands, questions, and phrases pertinent to daily interactions between agents and Spanish-speaking customers. Pre-Requisite FLI 7133.

FLI 7306. Command Spanish for Office Personnel. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This comprehensive Spanish language program provides immediate access to functional language skills for non-Spanish speaking medical, school and office secretaries and receptionists. The language component addresses the most important Spanish commands, questions and phrases pertinent to secretaries and receptionist work. No prior knowledge of Spanish is necessary.

FLI 7309. Beginning Spanish I. 0.0 Hours.
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students with little or no exposure to the Spanish language. Students will be introduced to fundamental vocabulary, grammar, speaking skills and cultural traits that will allow them to communicate through written and oral exercises.
FLI 7310. Beginning Spanish II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second course in the series of three Beginning Spanish courses and is designed for the student who has completed Beginning Spanish I, or has had some exposure to the Spanish language. Focus will be placed on the continued development of speaking, listening and writing skills. Upon successful completion of this course, the student will be able to: Demonstrate increasing competence in verbal and written expression, show proficiency in communicating in the present tense, with respect to conjugating reflexive, stem-changing and irregular verbs, and show more in-depth knowledge of various cultural features of Spanish speaking countries.

FLI 7311. Beginning Spanish III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the last in the Beginning Spanish series, designed for the student who has completed Beginning Spanish I and II, or has had moderate exposure to the Spanish language. This course builds on the verbal and written skills developed and emphasized in the first two courses while continuing to broaden the student’s knowledge of culture of Spanish speaking countries.

Forest Management (FOR)

FOR 7001. Self-Paced, Lab-Based Language Learning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Self-paced, lab-based language instruction is an option for students seeking to learn foreign languages in a lab environment at their own pace.

FOR 7002. Self-Paced, Lab-Based Technology Access Learning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Self-paced, lab-based technology access will: 1) help improve likelihood college matriculation of Latino high school students through academic support and related technology activities, and (2) prepare adult students for college and/or entrepreneurial opportunities through academic support and related technology activities. Bi-lingual staff members will provide an orientation to each new user as well as ongoing trouble-shooting and technical assistance.

Funeral Service (FSE)

Furniture (FUR)

General Education Development (GED)

GED 7010. GED in Spanish - Reading. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The General Educational Development (GED) program is for students who have not completed high school. This course will be offered in Spanish. Enrolling students must be at least 18 years old before they can be admitted to the program. All students must take a pre-assessment test. This test will help determine if the student is ready for the GED tests or whether he or she needs to take GED classes to be prepared for the GED tests.

GED 7011. GED in Spanish - Math. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The General Educational Development (GED) program is for students who have not completed high school. This course will be offered in Spanish. Enrolling students must be at least 18 years old before they can be admitted to the program. All students should take a pre-assessment test. This test will help determine if the student is ready for the GED tests or whether he or she needs to take GED classes to be prepared for the GED tests.

Geographic Information Systems (GIS)

GIS 7011. Introducing ArcGIS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcGIS is a GIS developed and sold by Environmental Systems Research Institute, Inc. (ESRI). It has a long history and has been through many versions and changes. Originally developed for large mainframe computers, in the last 10 years it has metamorphosed from a system based on typed commands to a full-featured graphical user interface (GUI), which makes it easier to use. Because of the size and complexity of the suite of programs, and because users have come to depend on certain aspects of the software, much of the code is carried forward and included in new versions. Knowing this background helps a student of ArcGIS understand the nature of the ArcGIS system, and helps explain some of its odd features and characteristics.

GIS 7012. Working with ArcMap. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcMap works with map documents; a map document is a collection of different spatial data layers and tables, along with instructions for how the layers will be displayed. Map features have properties that control the symbol, color, and style with which they are drawn. Tables have properties that specify which fields are shown, how many decimal places are included, and so on. The map document keeps track of all of these layers and their properties, so that when it is opened again, the map appears exactly as it was when it was last saved. Even the size of the windows and the location of the toolbars are stored when saving the document.

GIS 7013. Coordinate Systems and Map Projections. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A successful GIS system depends in large part on using projections correctly, and a person’s skill in managing and converting projections can dictate the value of a database. Unfortunately, projections can be somewhat daunting to those encountering them for the first time, so review is often necessary to become comfortable. One learns best about projections by working with them.

GIS 7014. Drawing & Symbolizing Features. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcMap provides many ways to present and analyze map data, and one of the most powerful techniques is assigning symbols based on one or more attributes. Readers can quickly see spatial patterns not readily apparent from looking at the data. This section presents many ways to display features, and it also shows how to edit symbols and save them in groups, as styles.
GIS 7115. Working with Tables. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A table is a data structure for storing multiple attributes about a location or object. ArcGIS manages these data tables in an object it refers to as a Table, which is a window that displays information from the tabular data structure and allows the user to work with the information in the file. The data may come from several types of data files, but the Table itself always looks the same and has the same functions, so that users don’t need to learn different commands for working with different file types.

GIS 7116. Queries. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A query extracts features or records from a data table and isolates them for further use, such as printing them, calculating statistics, editing them, creating new files from them, or doing more queries. In the simplest kind of query, the selected features are highlighted on the screen, and the corresponding records in the table are highlighted as well. This course provides examples of that selection and highlighting.

GIS 7117. Spatial Joins. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A spatial join is similar to an attribute join except that instead of using a common field to decide which rows in the table match up, the location of the spatial feature is used. For example, a point layer containing locations of wells and a polygon layer of geology could be joined to determine the geologic unit the well lies within. Each well gets the attribute information from the polygon it lines inside. An alternate criterion is distance - joining records that lie closest to each other, such as tagging each hotel with its closest restaurant.

GIS 7118. Map Overlay. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Spatial joins, although powerful, are limited when spatial features do not overlap exactly. When this limitation occurs, the ability to split features and assign use to each section is required. This ability to split features that partially overlap is the most important feature of a map overlay and explains how it differs from a join.

GIS 7119. Presenting Data. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
GIS analysis often results in information to be shared with others in the form of maps or reports. Whether you’re creating a large poster-style map, a page-sized map, or a report, a few guidelines help in devising a map design which expresses the essence of the data and gets its message across. This section introduces some basic ways to communicate ideas to others.

GIS 7110. Geocoding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A street address contains a type of spatial information; however, additional knowledge on the part of the post office is required in order to deliver mail, e.g. the location of the street and the sequence of house numbers. Geocoding combines map information with street addresses in order to locate a point uniquely; it enables someone to convert a list of addresses into points on a map.

GIS 7111. Basic Editing in ArcMap. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Editing in ArcMap provides the ability to modify and update existing layers of data, or to create new ones. For example, a housing subdivision is added to a city, the new roads must be added to the city’s roads layer. Likewise, new parcels, sewer lines, and other infrastructure need to be added to the city database to ensure it is up to date. A new layer may be created to reflect a city council’s decision to create garbage collection zones where none existed before. This section provides insight into these processes.

GIS 7112. More Editing Techniques. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Examining additional ways to form and modify features. First, examining the functions of the different types of sketch tools, look at ways to modify and reshape features, combine features together, and create new features by buffering old ones. Finally, discovering how to easily edit features which share a common boundary.

GIS 7113. Working with Geodatabases. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In ArcGIS software, coverages were the first data model used. Later in ArcView, shapefiles were developed; in ArcGIS 8 the geodatabase model arrived. The new model offers advantages over coverages and shapefiles but is simpler in construction and more robust in general usage. This module provides insight into those advantages.

GIS 7114. Analyzing Networks. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Networks consist of a system of paths traveled by a variety of things, e.g. traffic, water, sewage or electricity; they generally also have a modeling capability to be able to better answer common problems that may arise. Geodatabases contain a special data model developed to answer those same kinds of questions by creating a network of feature classes or layers. This module explores that technique.

GIS 7115. Raster Analysis. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The availability of two different data models, raster and vector, provides added flexibility to options for data storage and analysis. Neither model is intrinsically superior; both have areas in which they excel and areas in which they are at a disadvantage. Having a grasp of both tools holds the key to developing the most efficient and accurate analysis.

GIS 7116. Introduction to ArcGIS 9.3. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcGIS 9.3 is a software package developed and sold by Environmental Systems Research Institute, Inc. (ESRI). It has a long history and has been through many versions and changes. Originally developed for large mainframe computers, in the last 10 years it has metamorphosed from a system based on typed commands to a full-featured graphical user interface (GUI), which makes it easier to use. Because of the size and complexity of the suite of programs, and because users have come to depend on certain aspects of the software, much of the code is carried forward and included in new versions. Knowing this background helps a student of ArcGIS understand the nature of the ArcGIS system, and helps explain some of its odd features and characteristics.
GIS 7117. Introduction to ArcPad and GPS Analyst. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A comprehensive suite of theory, techniques, and hands-on practice to learn to use GPS equipment and software for data collection, with the final product being a geospatial data layer. Course emphasis is on how to complete a GPS project from start to finish. The student will learn how to plan a field collection, create a data dictionary, download and correct GPS data, and then export to a GIS data format. Equipment and software used during the course for project planning and field exercises include Trimble Mapping GPS receivers, Pathfinder Office software, and ESRI ArcGIS and ArcPad software.

GIS 7200. HAZUS-Multi-Hazard Training - Hurricanes. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically to provide training in: An introduction and overview of HAZUS; The particular nuances using ArcGIS software for map creation and basic editing; And the use of models for various hurricane scenarios.

GIS 7320. Integrating Cultural Resources with GIS GPS. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A comprehensive suite of theory, techniques, and hands-on practice to learn to use GPS equipment/software for data collection, with the final product being a geospatial data layer inside. Course emphasis is on how to complete a cultural resources GPS project from start to finish. The student will learn how to plan a field collection, create an SPD compliant data dictionary, download and correct GPS data, and then export to a GIS data format. Equipment and software used during the course for project planning and field exercises includes Trimble Mapping GPS receivers, TerraSync Field Software, Pathfinder Office software, and ESRI ArcGIS.

GIS 7500. GIS in Economic Development. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Having the right tool for the right job is an accurate way of describing the requirement for the use of GIS technology in the role of economic development. Without the tool and data, performing adequate analysis to be able to determine suitable (or best) site selections are extremely difficult and sometimes impossible. Without that analysis, marketing or other forms of communications of strengths is a formidable task. This course describes those tools, data and communication techniques.

GIS 7600. Geographic Information Systems in Law Enforcement. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
GIS makes critical information from local, state, and federal government agencies readily available. Law enforcement officials can benefit from this availability by planning and reacting more effectively. This ability is provided through the integration of information such as property ownership, accessible streets and highways, hazardous material locations, fire preplans and zoning information. This course provides the basics for this integration through planning, map creation, data acquisition & preparation, mitigation analyses and the presentation of that analyses.

GIS 7700. GPS in GIS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
A comprehensive suite of theory, techniques, and hands-on practice to learn to use GPS equipment/software for data collection, with the final product being a geospatial data layer inside. Course emphasis is on how to complete a cultural resources GPS project from start to finish. The student will learn how to plan a field collection, create a data dictionary, download and correct GPS data, and then export to a GIS data format. Equipment and software used during the course for project planning and field exercises includes Trimble Mapping GPS receivers, TerraSync Field Software, Pathfinder Office software, and ESRI ArcGIS.

GIS 8101. Working with ArcPad 7. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcPad is ESRI’s mobile GIS software that is used to capture, display, analyze, and edit geographic information in the field. This focused course provides an overview of ArcPad 7 and demonstrates some of its powerful capabilities. Students learn about the wide range of tools, symbols, and style sheets that come with ArcPad and how ArcPad is used to gather and edit data. The course emphasizes best practice principles and considerations for common field tasks.

GIS 8111. Learning ArcGIS9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcGIS Desktop software is an integrated system that includes all the tools needed to get the most out of a GIS. This course introduces fundamental concepts of GIS and the major functionality contained within ArcGIS Desktop software. In course exercises, participants follow the GIS analytical process and work with a variety of tools to solve realistic problems. This course emphasizes practical GIS skills.

GIS 8112. Creating and Integrating Data for Natural Resource Applications. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Frequently, the natural resource data needed for a project (such as vegetation, species locations, or watersheds) does not exist. Or, the data may exist but significant manipulation is required before it can be displayed and used for analysis in a GIS. This four-module course teaches methods for acquiring, evaluation, creating, manipulating, and integrating data in preparation for analysis and map creation. Participants will learn tips for assembling a high-quality database, as well as best practice approaches to data problems commonly encountered by those in the natural resource and conversation fields. In a course project, participants apply the skills they’ve learned throughout the course.

GIS 8115. Creating, Editing, and Managing Geodatabases for ArcGIS. 9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The geodatabase is the ESRI data model that allows features to be modeled more realistically then ever before. This course covers all the basics and introduces the more advanced functionality that makes the geodatabase such a powerful data model. Participants will be able to get started working with geodatabases right away and understand the range of functionality that the geodatabase offers.

GIS 8120. Understanding Map Projections and Coordinate Systems. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Map projections and coordinate systems enable us to map the three-dimensional earth on a two-dimensional surface such as paper or a computer screen. This course introduces the fundamental concepts behind map projections, datums, and coordinate systems. Participants learn how the earth’s shape is defined and how geographic features are positioned using spherical coordinate systems. Essential characteristics of all map projections-aspect, perspective, and distortion-are discussed. Participants work with several popular projections and learn in which circumstances to use them. The emphasis is on theory, but participants gain practical experience working with ArcGIS software to apply map projections, modify their properties, and manipulate data sets stored in different coordinate systems. This course does not teach the mathematics behind individual map projections.
GIS 8121. Cartographic Design Using ArcGIS 9. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
As more people begin making maps using GIS software, they need to 
understand cartographic design principles that will help them create 
maps that are clear and convincing to those who will read them. This 
course discusses key design issues and teaches practical guidelines 
for creating maps that are well suited to their display medium and that 
speak effectively to their audience. Participants learn fundamental design 
principles and practice with the ArcGIS Desktop tools for creating high-
quality maps.

GIS 8122. Working with Map Topology in ArcGIS. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
This workshop provides an overview of map topology and gives ArcView 
users a foundation for working with map topology tools.

GIS 8125. Learning ArcGIS 9 3D Analyst. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
ArcGIS 3D Analyst software provides advanced tools for three-
dimensional modeling and analysis. This course teaches what a surface 
model is and shows how to create both raster and vector surfaces. 
Working mostly with models of terrain, participants display surfaces in 
three-dimensional perspective, symbolize them, and set three-dimensional 
properties. Participants also create realistic models by draping aerial 
photographs over surfaces and displaying two-dimensional features in 
three dimensions.

GIS 8130. Creating and Maintaining Using ArcGIS Desktop. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
Metadata, the key information that documents a dataset, has emerged as 
a powerful tool for safeguarding an organization’s investment in spatial 
data. Documenting datasets allows people to efficiently find them, evaluate 
their usefulness for a particular project, and share them with others. This 
course shows how metadata supports efficient management and use of 
spatial data and teaches practical strategies for creating and maintaining 
metadata using ArcGIS Desktop software. Participants learn how to write 
proper metadata using tools in ArcCatalog and how to automate metadata 
workflows using templates.

0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
ArcGIS software provides full support for geodatabase topology, including 
an advanced editing environment for maintaining topological relationships 
among features. This course explains how topology is implemented in 
the geodatabase and teaches how to use geodatabase topology to more 
accurately model the real world.

GIS 8132. Understanding Branching & Looping in VBA. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
Branching allows programs to execute different code based on user input 
or the result of a process. With looping, programs can repeat processes 
until specific conditions are met. This workshop introduces the two 
branching methods (the If Then Else statement and the Select Case 
statement) and the two looping structures (the For Next loop and the 
Do loop) that are available in the VBA environment, and teaches how to 
implement them. The workshop also teaches how branching and looping 
can be used in conjunction with ArcObjects.

GIS 8135. Learning ArcGIS 9 Spatial Analyst. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
ArcGIS Spatial Analyst software supports a broad range of sophisticated 
spatial modeling and analysis applications. This course teaches how to 
use ArcGIS Spatial Analyst to produce and control raster data. Participants 
create a variety of raster surfaces including hillshade relief maps, slope 
and aspect surfaces, and density and distance surfaces. In course 
exercises, participants work within the new ArcGIS geoprocessing 
environment to create, execute, and automate spatial analysis workflows.

GIS 8161. Customizing ArcMap: Easy Ways to Extend the Interface.  
0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
This workshop introduces easy ways to add custom functionality to the 
ArcMap interface. Using sample Visual Basic and VBA code, participants 
learn how to add, remove, and rearrange toolbars and menus; create new 
buttons, tools, command, and shortcut keys; and access commands that 
are not on the ArcMap interface.

GIS 8211. Spatial Analysis of Geohazards Using -Arcgis 9. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
Geologic hazards loom all around. As population growth forces more 
communities to expand into areas at risk, concern increases about the 
danger that geohazards pose to people, property, and the environment. 
This course shows how GIS can be used to determine where geohazards 
are likely to occur and assess their potential impact on the human 
community. Participants work with ArcGIS Desktop software to analyze 
and map a variety of geohazards. A better understanding of these events 
is the first step toward effective disaster planning.

0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
ArcGIS 9 software introduces new and improved sketch and edit tools 
for the geodatabase. This course teaches how to use those tools to 
build a geodatabase from the ground up. Participants learn how to utilize 
ArcMap’s standard and advanced tools to create and edit simple and 
complex features as well as feature-linked and dimension annotation. 
Additionally, participants learn how to work with features using coordinate 
geometry (COGO) descriptions and survey measurements.

GIS 8220. Introduction to ArcGIS I. 0.0 Hours.  
Class-440.0.  Clinical-0.0.  Lab-0.0.  Work-0.0  
ArcGIS Desktop software is an integrated system that includes all 
the tools needed to get the most out of a GIS. This course introduces 
fundamental concepts of GIS and the major functionality contained within 
ArcGIS Desktop software. In course exercises, participants follow the 
GIS analytical process and work with a variety of tools to solve realistic 
problems. This course emphasizes practical GIS skills.
GIS 8221. Introduction to Urban and Regional Planning Using ArcGIS 9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
For decades, urban and regional planners have used GIS technology to help find solutions to the challenges posed by increasing population growth and urban development. This course covers basic urban and regional planning concepts and tasks and teaches how those tasks can be managed using GIS techniques and ArcGIS Desktop software. Participants learn how to use ArcGIS tools to address real-world social, economic, and environmental planning problems. The skills and techniques presented in the course provide an effective and efficient means of carrying out urban and regional planning tasks.

GIS 8225. Geoprocessing with ArcGIS Desktop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Geoprocessing is a primary function of a GIS. ArcGIS Desktop software provides hundreds of tools for processing geographic data as well as ModelBuilder, a graphical environment for visualizing and executing work flows. This five-module course teaches practical strategies for using the ArcGIS geoprocessing framework to accomplish GIS work flows. Participants work with geoprocessing tools to create and organize workspaces, prepare data for analysis, and perform GIS analysis tasks, then learn how to streamline processes using models and scripts. Participants also learn how to create custom geoprocessing tools and the importance of documenting custom tools, scripts, and models. This course provides a solid foundation in the ArcGIS Desktop geoprocessing framework and emphasizes hands-on practice through software exercises.

GIS 8230. Turning Data into Information Using ArcGIS 9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course examines the scientific methods used to derive useful information from spatial data. Participants will explore GIS theory related to the visualization, measurement, transformation, and optimization of spatial data. An underlying theme that uncertainty is an inherent characteristic of spatial data is thoroughly examined and students learn how to identify it, measure it, and live with it.

GIS 8232. Protecting Your Investment in Data with Metadata. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to make GIS professionals take a critical look at their data documentation needs. Further, this course is designed to teach GIS professionals how to use ArcCatalog to document their data according to the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata.

GIS 8235. Working with Rasters in ArcGIS 9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Many geographic phenomena are best represented as rasters, but GIS users tend to be less familiar with this data model than with the vector data model. This course unlocks the mysteries of the raster. Participants learn which types of geographic phenomena are appropriately represented as rasters and how the type of data affects raster analysis. In course exercises, participants explore and work with a variety of raster datasets using core ArcGIS tools. Participants gain experience displaying rasters and modifying their properties to aid visual interpretation.

GIS 8240. Solving Disaster Management Problems Using ArcGIS 9. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Participants will learn to apply GIS to protect life, property, and critical infrastructure from natural disasters such as earthquakes, hurricanes, volcanoes, floods, and wildfires, as well as human-caused disasters, including technological hazards or acts of terrorism. Key GIS applications include natural hazard identification and mapping, multi-hazard analysis, shelter planning, mitigation, damage assessment, and recovery monitoring. Additionally, participants will learn how to present GIS data in ways that support emergency management analyses.

GIS 8300. Google Sketchup for GIS modeling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce and explore the tools and techniques needed to build three dimensional (3D) models using Google Sketchup and ArcGIS. Students will learn the basic techniques of creating 3D models by using basic shapefiles and TIN’s in ArcGIS and extruding their elevations with Google Sketchup. Advanced techniques such as "painting" and "landscape visualization" will be introduced to create more realistic scenes.

GIS 8400. Creating GIS Web-Mapping Applications. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on some of the different methods for creating and deploying useful Internet Web-Mapping applications. Students will focus on using ArcGIS Server to build and deploy applications including ArcGIS Server web mapping, Google Earth and Google Maps KML and KMZ files, and using the ArcGIS Server platform to manage web mapping applications. Students will also learn techniques in ArcMap to build maps that will function properly in ArcGIS Server and basic server maintenance for web mapping applications.

GIS 8510. Introduction to Geospatial Technology For K-12 Teachers. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce K-12 Teachers to Geospatial Technology for use throughout the K-12 curriculum. This course will introduce the foundations of becoming literate in geospatial software and how to integrate geospatial technology into the classroom for a variety of disciplines. Upon completion of this course the student will understand the core foundations in geospatial technology and will be able to apply it within the K-12 curriculum.

GIS 8520. Advanced Geospatial Technology for K-12 Teachers. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on advanced techniques in geospatial technology such as data management and advanced data processing. Students will learn how to manage and manipulate data to be used in a variety of applications and will understand processes essential to maintaining spatial data integrity. Upon completion of this course the student will understand how to manage spatial data and critical data maintenance for proper data functionality.

GIS 8530. Introduction to Geospatial Technology for College/University Faculty. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will introduce College/University Faculty to Geospatial Technology for use throughout higher education curriculum. This course will introduce the foundations of becoming literate in geospatial software and how to integrate geospatial technology into the classroom for a variety of disciplines. Upon completion of this course, the student will understand the core foundations in geospatial technology and will be able to apply it within a higher education curriculum.

GIS 8540. Advanced Geospatial Technology for College/University Faculty. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will focus on advanced techniques in geospatial technology such as data management and advanced data processing. Students will learn how to manage and manipulate data to be used in a variety of applications and will understand processes essential to maintaining spatial data integrity. Upon completion of this course the student will understand how to manage spatial data and critical data maintenance for proper data functionality.
GIS 8600. Building and Managing a Geodatabase in ArcGIS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed to introduce basic concepts in building and managing a geodatabase and to explore advanced options for geodatabase use. The course will guide the student through the design process and illustrate multiple methods in customizing a geodatabase. Special emphasis will be placed on topology, annotation, and coordinate systems.

GIS 8800. GIS/GPS for NC Water Technicians. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: GIS concepts, the particular nuances using ArcGIS software for map creation and basic editing, and the use of GPS devices and procedures to integrate position data into GIS systems.

GIS 8801. GIS/GPS for NC Water Technicians II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: GIS concepts, the particular nuances using ArcGIS software for map creation and basic editing, and the use of GPS devices and procedures to integrate position data into GIS systems.

GIS 8802. Water Association-Introduction to GIS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: GIS concepts, the particular nuances using ArcGIS software for map creation and basic editing.

GIS 8803. Water Association-Introduction to GPS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: The use of GPS devices and procedures to integrate position data into GIS systems.

GIS 8804. Water Association-Introduction to Cartography. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: Map Creation; Basic Editing & Features of maps.

GIS 8805. Water Association-Advanced GIS. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed specifically for the NC Rural Water Association for technicians in NC water & stormwater utilities. It is designed to provide training in: Geoprocessing (Spatial Analysis); More Editing Techniques; Analyzing Networks.

GIS 8808. Introduction to Mobile GIS Training. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
ArcPad is ESRI’s mobile GIS software that is used to capture, display, analyze, and edit geographic information in the field. This focused course provides an overview of ArcPad 7 and demonstrates some of its powerful capabilities. You will learn about the wide range of tools, symbols, and style sheets that come with ArcPad and how ArcPad is used to gather and edit data. The course emphasizes best practice principles and considerations for common field task.

GIS 8901. GIS/GPS Primer for Environmental Use. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will include content from 4 established courses: GIS8101 includes "A focused course provides an overview of ArcPad 7 and demonstrates some of its powerful capabilities". GIS8111 "introduces fundamental concepts of GIS and the major functionality contained within ArcGIS Desktop software". GIS8112 "Teaches methods for acquiring, evaluating, creating, manipulating, and integrating data in preparation for analysis and map creation". GIS8120 includes "Map projections and coordinate systems to enable students to map the three-dimensional earth on a two-dimensional surface such as paper or a computer screen".

GIS 8902. GIS/GPS for Emergency Operations. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will include content from 4 established courses: GIS 8101 includes "A focused course provides an overview of ArcPad 7 and demonstrates some of its powerful capabilities." GIS 8111 "introduces fundamental concepts of GIS and the major functionality contained within ArcGIS Desktop software." GIS 8112 "Teaches methods for acquiring, evaluating, creating, manipulating, and integrating data in preparation for analysis and map creation." GIS 8120 includes "Map projections and coordinate systems to enable students to map the three-dimensional earth on a two-dimensional surface such as paper or a computer screen.".

GIS 8911. GIS for CSM - Data Management. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides an overview of ArcCatalog’s tools and advanced operations, and introduces improved methods for managing and searching both spatial and nonspatial data. Students learn how to customize the interface by adding new tools and functionality. Raster data files, such as satellite images and aerial photographs, are more useful when registered to the same projection used by other GIS data in an organization’s data holdings. ArcGIS software provides all the tools needed to georeference, transform, and project raster data. In this focused course, students learn how to transform a raster to fit a known projection, as well as how to scale, shift, rotate, and project raster data.

GIS 8912. GIS for CMS - Cartography. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a foundation for understanding what a geographic information system is and the possibilities it offers for discovering patterns, relationships, and trends. You will learn how GIS maps are different from other types of paper and digital maps, what makes the data used in a GIS unique, and how to use GIS software to obtain information and create meaningful maps. In interactive exercises and activities throughout the course, you will work with ArcGIS software and see how a GIS supports problem solving in many different contexts.

Graphic Arts (GRA)
GRA 7100. Image Manipulation I. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0

Graphic Design (GRD)

Gunsmithing (GSM)

Hazardous Materials (HAZ)
Health (HEA)

HEA 7000. Cpr Recertification- Course a. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
Review and update on cpr material and manikin practice. Includes written test and satisfactory performance of one rescuer cpr.

HEA 7002. Adult,Infant Child Cpr and First Aid. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches the standard first aid skills the student needs in order to act as the first link in the ems system. Subjects such as bleeding, burns, fractures, and strokes, one-Person cpr for adult/Infant/Child, procedure for an obstructed airway and a discussion of risk factors leading to cardiac arrest and symptoms of heart attack.

HEA 7003. First Aid 1. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches the standard first aid skills the student needs in order to act as the first link in the ems system. Subjects such as bleeding, burns, fractures, and strokes are included.

HEA 7005. Course B Cpr - Adult, Child, Infant. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will include one person (heartsaver) adult and pediatric obstructed airway, and pediatric (infant cpr).

HEA 7007. CPR - Basic Rescuer-Course C. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes mouth-To-Mouth breathing one rescuer cpr; two rescuer cpr; one and/or two rescuer cpr for infant; clearing obstructed airway and study risk factors of heart attach and stroke.

HEA 7012. Cardiopulmonary Resuscitation Heartsaver Recertification. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will review and update cpr material and a written test will be given. Manikin practice and performance of a satisfactory one-Rescuer cpr will be done.

HEA 7099. First Aid and Adult CPR. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach basic first-Aid principles, procedures for minor to major injuries and adult cpr. Common emergencies, such as respiratory, bleeding, fracture, poisonings, burns and the proper methods of treatment are covered.

HEA 7131. Tanning Booth Certification. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0

HEA 7209. State Board Optics Review. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a review of optics i, optics ii, optics iii, optics iv, optics v, and optics vi.

HEA 7226. Osha Bloodborne Pathogens Standards. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide mandated training on the osha bloodborne pathogens standard as specified in the standard.

HEA 7235. Neonatal Resuscitation Program. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to equip the health care provider with the necessary skills to manage emergency situations in the newborn.

HEA 7236. Pediatric Advanced Life Support. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
The PALS course is designed to certify EMS and Critical Care Personnel in Pediatric Advanced Life Support through the American Heart Association. This course teaches the proper evaluation and treatment of a pediatric patient in cardiopulmonary arrest. Upon successful completion, the student will be awarded PALS certification from the American Heart Association. Pre-requisite: Initial PALS course, BLS certification. It is desirable but not required that and ALS certification be held.

HEA 7243. American Heart Association Instructor Association Instructor. 0.0 Hours. Class-19.0. Clinical-0.0. Lab-0.0. Work-0.0
The Instructor’s Course is designed to certify instructors through the American Heart Association. This course teaches discipline specific instruction skills in general, as well as specific teaching skills. This is the American Heart Association discipline specific course, which includes monitoring, American Heart Association Training Center affiliation and issue of the American Heart Association Instructor card.

HEA 7244. Advanced Cardiac Life Support (ACLS). 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
This course follows the standard American Heart Association guidelines. It provides physicians, nurses, paramedics and other health care providers with information concerning advanced management of the adult cardiac patient. Upon successful completion, the student will be awarded ACLS certification from the AHA. Pre-requisite: Previous ACLS course and current AHA Basic Life Support for the Healthcare Provider (CPR certification).

HEA 7245. Venipuncture Techniques for Lab Draws And IV Therapy. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide health care professionals with the necessary skills for obtaining laboratory samples and providing IV therapy.

HEA 7246. Pre-Hospital Trauma Life Support. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Understanding the need of the trauma patient. Teaches that critically injured patient must be transported as quickly as possible, without detailed examination and treatment of non-Critical conditions. Accomplished through lecture and skills assessment. Studies kinematics of trauma, patient assessment & mgmt, airway mgmt, ventilation, thoracic trauma.

HEA 7247. Pediatric Advanced Life Support Recerticiation. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Recertification course needed to maintain certification in advanced pediatric life support.

HEA 7248. Pediatric Advanced Life Support Instructor Trainer Course. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed instructors to teach pediatric advanced life support after successful completion of the course, participants will be certified as pals instructors through the american heart association.

HEA 7249. Advanced Cardiac Life Support- Recertification. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Required yearly recertification to remain certified as a provider of acls.

HEA 7250. Exploring Medical Language. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Basic medical terminology course for health care personnel medical terms will be introduced using word roots, suffixes and prefixes as the student explores the various body structures and systems.
HEA 7252. Pre-Hospital Trauma Life Support Renewal. 0.0 Hours.
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to review the key content of the initial phlts course and expand the participant’s knowledge and understanding of the special consi- derations in assessment and management of the pediatric and the elderly trauma victim. Current changes and controversies are identified and each participant should receive the knowledge and develop the ability to perform the skills identified as recommended by prehospital trauma care standards.

HEA 7253. Prehospital Trauma Life Support Instructor. 0.0 Hours.
Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to provide the pre-Hospital trauma life support instructor coordinator candidates with the knowledge, skills, and support materials necessary to conduct and/or participate as a faculty member in an approved phlts course.

HEA 7254. Exploring Medical Language. 0.0 Hours. Class-90.0.
Clinical-0.0. Lab-0.0. Work-0.0
This is a medical terminology course that includes the basics of anatomy and physiology, disease process, and pharmacology.

HEA 7255. Cpt Medical Coding. 0.0 Hours. Class-32.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to train medical record personnel in medical coding using the cpt procedural codes.

HEA 7256. Basic Coding Principles of ICD-9-CM. 0.0 Hours.
Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
A course designed to introduce icd-9-cm coding to individuals who have not had formal training in format and coding guidelines and also to be a refresher course for individuals who have not used coding for a period of time.

HEA 7260. Basic ICD-9-CM and CPT Medical Coding. 0.0 Hours.
Class-58.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn basic procedure codes for use in physician offices. Must have some medical terminology background.

HEA 7265. Anatomy & Physiology for CCE Students. 0.0 Hours.
Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
Basic anatomy and physiology course designed for students entering medical transcription and medical coding classes.

HEA 7270. Medical Reimbursement Specialist. 0.0 Hours. Class-90.0.
Clinical-0.0. Lab-0.0. Work-0.0
Students will learn basic icd-10-cm and cpt coding skills coding skills. Students will gain knowledge of medicare, medicaid, managed care, insurance terminology, billing and reimbursement skills.

HEA 7271. Medical Reimbursement Specialist- Icd-9. 0.0 Hours.
Class-150.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn basic coding skills, medicare, medicaid, insurance terminology and billing and reimbursement skills.

HEA 7272. Advanced Cardiac Life Support Instructor Course. 0.0 Hours. Class-16.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the individual to set up, teach and evaluate advanced cardiac life support courses.

HEA 7275. Medical Billing and Reimbursement. 0.0 Hours. Class-36.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach students the fundamental skills necessary to perform medical billing in today’s managed care environment.

HEA 7280. Hospital Coding. 0.0 Hours. Class-58.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course will give students instruction in icd-9-cm diagnosis and cpt code assignments for hospital records. Students should be acquainted with basic coding before entering this course.

HEA 7300. Skills for Success. 0.0 Hours. Class-12.0.
Clinical-0.0. Lab-0.0. Work-0.0
Provides students with study skills necessary for school and dietary management program success.

HEA 7301. Basic Coding Principles of ICD-9-CM. 0.0 Hours.
Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
A course designed to introduce icd-9-cm Coding to individuals who have not had formal training in format and coding guidelines and also to be a refresher course for individuals who have not used coding for a period of time.

HEA 7302. CPT Medical Coding. 0.0 Hours. Class-42.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to train medical record personnel in cpt medical coding.

Clinical-0.0. Lab-0.0. Work-0.0
Covers nutrition from infancy to old age. Course includes basic food groups, vitamins, minerals, energy nutrients and metabolism.

HEA 7304. Therapeutic Nutrition. 0.0 Hours. Class-54.0.
Clinical-0.0. Lab-0.0. Work-0.0
Couse includes diet modifications as a response to illness, disease, growth and development, and old age.

HEA 7305. Food Systems Management. 0.0 Hours. Class-50.0.
Clinical-0.0. Lab-0.0. Work-0.0
Prepares students in the areas of safety, sanitation, accident prevention, menu planning and food preparation.

HEA 7306. Personnel and Administration. 0.0 Hours. Class-42.0.
Clinical-0.0. Lab-0.0. Work-0.0
Covers professional roles, responsibilities, personnel management, and problem solving.

HEA 7307. Neonatal Resuscitation - Instructor Trainer Course. 0.0 Hours. Class-6.0.
Clinical-0.0. Lab-0.0. Work-0.0
HEA 7311. Optometric Technician Course. 0.0 Hours. Class-20.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide participants with the skills necessary to function in the capacity of technician with in an optometric or ophthalmic medical practice.

HEA 7312. Intermediate Icd-9-Cm Coding. 0.0 Hours. Class-24.0.
Clinical-0.0. Lab-0.0. Work-0.0
Follow up course to basic icd-9-cm coding, this course will provide participants with additional coding guidelines and teach the student how to apply the basic guidelines to specific body systems. This course will provide more hands-on coding.

HEA 7313. Advanced Coding. 0.0 Hours. Class-72.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of basic and intermediate coding. It will provide in-depth coverage of icd-10-cm and cpt coding.

HEA 7315. EKG Technician. 0.0 Hours. Class-42.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the student to become a certified EKG technician.
HEA 7316. Dietary Managers Assoc. Exam Review. 0.0 Hours.  
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0  
This review course covers the materials taught in each of the four dietary managers training course program—Nutrition through the life cycle, therapeutic nutrition, food systems management, and personnel and administration.

HEA 7317. Food Systems Management. 0.0 Hours. Class-85.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This comprehensive course addresses food service delivery systems and detailed management information from menus through recipes, forecasting, purchasing, inventory management, budgets, cost control, quality management, employee safety and more. As a certified dietary manager an essential role is human resources, which includes staffing, scheduling, motivation, performance review, training, goals and objectives and communication. This course has been approved by the Association of Nutrition and Foodservice Professionals. 70 hours classroom/50-hour preceptor placement.

HEA 7318. Therapeutic Nutrition. 0.0 Hours. Class-85.0.  
Lab-0.0. Work-0.0  
Content includes the basics of nutrition: food preferences and customs, dietary guidelines, digestion, nutrient needs throughout the life cycle, medical nutrition therapy; nutrition assessment/screening, implementing dietary guidelines, digestion, nutrient needs throughout the life cycle, and detailed management information from menus through recipes, forecasting, purchasing, inventory management, budgets, cost control, quality management, employee safety and more. As a certified dietary manager an essential role is human resources, which includes staffing, scheduling, motivation, performance review, training, goals and objectives and communication. This course has been approved by the Association of Nutrition and Foodservice Professionals. 70 hours classroom/50-hour preceptor placement.

HEA 7319. Sanitation: Servsafe Certification. 0.0 Hours. Class-16.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
ServSafe is the National Restaurant Association Educational Foundation’s food safety program. Its focus is upon the food service leader’s role in measuring risks, setting policies, and training and supervising employees.

HEA 7320. Hospital Nursing Unit Secretary. 0.0 Hours. Class-192.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to prepare individuals to perform competently as a secretary on a nursing unit. Students will learn and perform various clerical procedures such as telephone techniques, physician order interpretation, maintenance of the patient’s chart, scheduling appointments and requesting supplies and/or equipment.

HEA 7326. Hospital Nursing Unit Secretary Part 2. 0.0 Hours.  
Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0  
Course is designed to teach hospital nursing unit secretary skills such as physician order interpretation, medical chart management, and orientation to a nursing unit. Prerequisite or corequisite HEA 7254 and keyboarding at 35 wpm.

HEA 7330. Spanish for Healthcare Workers. 0.0 Hours. Class-48.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
Designed as a basic Spanish class for healthcare workers. This course will cover basic vocabulary of greetings, daily living activities and anatomical features.

HEA 7340. Holistic Wellness - Maximizing Health in Today’s World. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to review various complementary and alternative approaches to wellness while participants develop a personal map of their own wellness. Participants will gain a greater understanding of the many different types of alternative substances and therapies available. Herbal and other supplements will be reviewed and participants will learn how to assess validity of the many products available. Practitioners of various approaches will be invited to the class to provide insight into their careers and perspectives.

HEA 7344. Advanced Medical Life Support. 0.0 Hours. Class-33.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
AMLS is a two-day (16-hour) in-depth study of medical emergencies. This course emphasizes a pragmatic approach and format, based on teaching providers what they need to know.

HEA 7345. AMLS Instructor Course. 0.0 Hours. Class-33.0. Clinical-0.0.  
Lab-0.0. Work-0.0  
This mandated class covers the material needed to prepare an individual to instruct in an AMLS class. This class meets the NAEMT requirements.

HEA 7400. Advanced Transcription. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0  
Uses advanced transcription tapes to fully prepare students for entry into the job market as a medical transcriptionist.

HEA 7401. Medical Transcriptionist. 0.0 Hours. Class-144.0.  
Clinical-0.0. Lab-0.0. Work-0.0  
Students learn basic medical transcription skills using a Dictaphone and computer keyboarding.

HEA 7405. Medical Transcription Formatting/Editing. 0.0 Hours. Class-176.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will prepare students with research skills, proofreading and editing ability, and also formatting of material to be transcribed. Provides students with more specialized terms related to the medical field as well as commonly confused terms, misspelled words, punctuation, grammar, and style guidelines of transcription. Familiarizes students with Microsoft Word as used by transcriptionists, including shortcuts and formatting.

HEA 7500. Medical Reimbursement Specialist Part I. 0.0 Hours. Class-72.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed to prepare individuals to work in the healthcare field as a billing specialist. Part I includes medical terminology, disease process, basics of medical insurance, insurance terminology, legalities, ethics and parts of a medical record.

HEA 7600. Medical Keyboarding. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course is designed as a basic keyboarding program intended for persons entering a health care field. the keyboarding practice utilizes some medical terms.

HEA 7625. Medical Keyboarding. 0.0 Hours. Class-72.0. Clinical-0.0. Lab-0.0. Work-0.0  
Provides a basic keyboarding course designed for persons entering a healthcare field.

HEA 7630. Medical Receptionist. 0.0 Hours. Class-45.0. Clinical-0.0. Lab-0.0. Work-0.0  
Designed for students who want to work in a physician’s office performing front-desk receptionist skills such as appointment scheduling and medical records management.

HEA 7631. Diseases and Pharmacology. 0.0 Hours. Class-27.0. Clinical-0.0. Lab-0.0. Work-0.0  
Provides basic information about common diseases and their treatment as well as commonly prescribed drugs. Course is designed as a follow-up for medical terminology for students preparing for courses in medical information training.

HEA 7640. Medical Keyboard and Receptionist Skills. 0.0 Hours. Class-112.0. Clinical-0.0. Lab-0.0. Work-0.0  
Keyboarding 1 trains the student to master the basic keyboard (letters, numbers, symbols) by touch. Emphasis is placed on building speed & accuracy and touch typing techniques. Part 2 covers producing letters, reports, tables & memos in mailable form.
HEA 7700. Sleep Technologist. 0.0 Hours. Class-104.0. Clinical-0.0. Lab-0.0. Work-0.0
Prerequisite: Must take test 452, be a HS graduate and have departmental permission. This program will train students to become a sleep technologist in a hospital and/or sleep center.

HEA 7701. Introduction to Health Occupations for Esl Students. 0.0 Hours. Class-54.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will improve their communication in the workplace and literacy skills needed for workplace training through an overview of health care with a focus on the nursing assistant profession. Students will demonstrate the ability to use efficient learning techniques as well as acquire, evaluate, analyze and communicate information.

HEA 7800. Computer Software for the Medical Office. 0.0 Hours. Class-176.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to introduce students to software applications in the medical office. Students will learn valuable skills including medical billing, scheduling, report generation, patient data input, computer utilities and software vocabulary.

HEA 7936. Pediatric Advanced Life Support. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
The Pediatric Advanced Life Support [PALS] Course is designed to certify physicians, registered nurses or EMT- Paramedics in Pediatric Advanced Life Support through the American Heart Association. This course teaches the proper evaluation and treatment of a pediatric patient in cardiopulmonary arrest. Upon successful completion, the student will be awarded PALS certification from the American Heart Association. Prerequisite: AHA BLS and ACLS* "It is desirable but not required that an ACLS certification be held.

HEA 7944. Advanced Cardiac Life Support. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
The Advanced Cardiac Life Support [ACLS] Course is designed to certify physicians, registered nurses or EMT- Paramedics in Advanced Cardiac Life Support through the American Heart Association. This course teaches the proper evaluation and treatment of an Adult patient in cardiopulmonary arrest. Upon successful completion, the student will be awarded ACLS certification from the American Heart Association. Prerequisite: Current AHA BLS Certification as a Healthcare Provider.

HEA 7956. CPR Adult, Infant, Child. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Adult, infant child CPR based on American Heart Association standards.

HEA 7981. American Heart Association Cardiopulmonaryresuscitation Techniques -Initial. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide a wide variety of professionals with the ability to recognize several life-threatening emergencies, provide Cardio Pulmonary Resuscitation (CPR), use an Automated External Defibrillator (AED), and relieve choking in an adult, child or infant victim; in safe, timely and effective manner.

HEA 7982. American Heart Association Cardiopulmonary Resuscitation Techniques - Renewal. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide a wide variety of professionals with the ability to recognize several life-threatening emergencies and provide Cardio Pulmonary Resuscitation (CPR), use an Automated External Defibrillator (AED),or relieve choking in an adult, child or infant victim; in safe, timely and effective manner.

HEA 7983. CPR Adult/Infant/Child Heartsaver. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
The Heartsaver CPR course is designed to teach CPR and relief of foreign-body airway obstruction to lay rescuers including security guards, firefighters, and police. Course teaches adult, child and infant CPR and foreign body airway management, mouth-to-mouth ventilation and rescue breathing using barrier devices that are typically used for CPR in the workplace.

HEA 7984. Cardiopulmonary Resusciation Recertification. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is to recertify students who currently hold an American Heart Association basic CPR certification. The method of instruction will be lecture, demonstration and skill application upon training mannekins.

HEA 8020. Medical Keyboarding. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as a basic keyboarding program intended for persons entering a healthcare field. The keyboarding practice utilizes some medical terms.

HEA 8025. Medical Office Terminology /Admin. Pro. Administrative Procedures. 0.0 Hours. Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students who want to work in a physician’s office doing front desk receptionist work, appointment scheduling and medical records management. Medical terminology of all body systems is included.

HEA 8030. Medical Keyboarding and Receptionist Skills. 0.0 Hours. Class-110.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students who need basic keyboarding skills and front office medical reception skills.

HEA 8040. Sleep Technologist. 0.0 Hours. Class-90.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to train individuals to become a sleep technologist in a hospital and/or sleep center. Students will learn appropriate sleep terminology with anatomy and physiology, introduction to PC, CPR, and clinical aspects of sleep.

HEA 8045. Hospital Coding. 0.0 Hours. Class-45.5. Clinical-0.0. Lab-0.0. Work-0.0
This course will give students instruction in ICD-9-CM Diagnosis code assignments for hospital (in-patient) records. Students should have basic coding skills before entering this course.

HEA 8046. Medical Billing and Reimbursement. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach students the fundamental skills necessary to perform medical billing in today’s managed care environment.

HEA 8047. Medical Reimbursement Specialist. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare participants in the basics of ICD-9-CM and CPT-4 Coding, HCFA 1500 Forms, insurance basics and collections.

HEA 8051. Cancer Prevention and Early Detection. 0.0 Hours. Class-1.5. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to allow participants to learn through self study and guided direction at home. Requirements include 140 hours of study and 150 hours of clinical preceptorship. All work is supervised by a registered dietitian. Upon completion of the course, participants are eligible for nat. Exam cert. Diet. Mgr.
HEA 8056. Medical Transcription I. 0.0 Hours. Class-192.0. Clinical-0.0. Lab-0.0. Work-0.0
This course consists of extensive medical terminology and anatomy that is needed to prepare the student to transcribe medical reports. It also includes keyboarding. Students must be able to type 45 wpm at the end of the course.

HEA 8057. Medical Transcription II. 0.0 Hours. Class-128.0. Clinical-0.0. Lab-0.0. Work-0.0
Medical transcription II is a continuation of medical transcription i with the emphasis being on increased keyboarding speed and transcribing speed.

HEA 8058. Medical Insurance Billing. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach individuals the fundamental skills necessary to perform medical billing in today's managed care environment.

HEA 8059. Understanding Medical Insurance. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Students taking this course will learn a basic knowledge of medical insurance, including medical insurance, medicare/medical info, and understanding of claim forms.

HEA 8060. Basic Icd-9-Cm Coding. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
A course designed to introduce icd-9-cm coding to individuals who have not had formal training in format and coding guidelines, and also to be a refresher course for individuals who have not used coding for a period of time.

HEA 8061. Basic Spanish for Health Care. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a 14 hour introductory spanish course for health care providers.

HEA 8062. Medical Reimbursement Specialist Part 1. 0.0 Hours. Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare individuals to work in the healthcare field as billing specialist. Part I includes medical terminology, disease process, basics of medical insurance, insurance terminology, legalities, ethics, and the parts of a medical record.

HEA 8063. Medical Reimbursement Specialist- II. 0.0 Hours. Class-75.0. Clinical-0.0. Lab-0.0. Work-0.0
Course covers all aspects of coding and insurance billing procedures.

HEA 8065. Certified Precedural Coder (CPC) Exam Review. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
A review of ICD-9-CM and CPT medical codes for students wanting to take the CPC Exam.

HEA 8235. Neonatal Resuscitation Course. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is for healthcare providers. Textbook Required.

HEA 8236. Neonatal Resuscitation Instructor. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Prerequisite: Must have current NRP provider certification. Textbook required.

HEA 8237. Pediatric Advanced Life Support. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required.

HEA 8242. Bls Instructor Update Course. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a mandatory update from american heart association for approved basic life support instructors to address new standards for basic life support instruction.

HEA 8243. CPR Instructor. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required. Must have current AHA Healthcare CPR card.

HEA 8244. Advanced Cardiac Life Support. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required. Prerequisite: knowledge of cardiac rhythms and medications.

HEA 8247. Pediatric Advanced Life Support Renewal. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook required. Must have current NRP certifications.

HEA 8248. Pediatric Advanced Life Support Instructor Course. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook required. Must have current PALS provider card.

HEA 8249. Advanced Cardiac Life Support - Renewal. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required.

HEA 8272. Advanced Cardiac Life Support Instructor Course. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required. Must have current ACLS provider card.

HEA 8273. Physical Therapy Workshop. 0.0 Hours. Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
Workshop designed to meet continuing education needs of physical therapists, physical therapists assistants, and occupational therapist. Topics vary and relate to the practice of the specialties. Examples of topics include: Proprioceptive Neuromuscular facilitation I, Neuro-clinical applications of PNF, Functional Gait: Component Assessment and Treatment, and Back Education and Training.

HEA 8301. Common Sense About Feeling Tense. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This health promotion program focuses on educating participants on the effects of stress and provides suggestions for stress management and behavioral modification.

HEA 8302. Cardiovascular Risk Factor Education Program. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an inter-disciplinary program targeted to health care professionals. It is designed to identify, counsel, and treat patients who have risk factors for heart disease and stroke. The primary focus is high cholesterol and hypertension.

HEA 8303. Stroke: What Every Person Needs to Know. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This program helps educate patients and other community members on the causes and effects of stroke. The focus of the course is on facts. Supportive care for the stroke patient outlines the caregiver's and patient's needs.

HEA 8304. Dietary Manager Certification Exam Review. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course serves as a review for current and past dietary manager students to help prepare them to sit for the dietary manager national certification exam.

HEA 8306. Servsafe Re-Certification. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Servsafe is the National Restaurant Association Education Foundation's food safety program. The course is accepted in most jurisdictions that require training for food safety. This re-certification course involves a short review and the SERVSAFE exam.
HEA 8311. Optometric Technician. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide participants with the skills necessary to function in the capacity of technician within an optometric or ophthalmic practice.

HEA 8316. Dietary Manager Certification Exam Review. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Dietary Manager Certification exam review covers the material taught in each of the three training programs - Therapeutic Nutrition, Food Systems Management and ServSafe Essentials. Eligibility to take the exam requires successful completion of the three programs. The exam is offered through the Association of Nutrition and Foodservice Professionals each October and March at designated locations. Upon passing the exam, the student will have earned the title of Certified Dietary Manager, Certified Food Protection Professional (CDM?, CFPP?).

HEA 8340. Holistic Health - Feel Better, Look Better!. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Unhappy? Overweight? Stressed? Sleep Deprived? Would you like more energy, less weight and fewer aches and pains? You know you should live more healthfully, but where do you begin? Diet, exercise, sleep, environmental toxins - all the headlines, conflicting studies, and trendy diets can be overwhelming. The premise of a holistic approach is to give the body what it needs and it will keep itself disease and symptom-free. Come learn simple, practical tools to help you quickly and easily adopt healthier habits in your day-to-day life. This 12-week interactive course provides sensible strategies to get your life "on track." It will include healthy cooking demos and taste testing. It will help also you create a personalized path to greater wellbeing.

HEA 8401. Medical Transcription Internship. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides internship training at local facility medical records department. Students will gain additional expertise in medical transcription using actual hospital records under the guidance of instructors.

HEA 8901. Medication Technician. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Course provides basic training in monitoring and clinical practices needed to safely administer medications. Must be 18 years old to register for course.

HEA 8902. Asperger’s Syndrome & Psychiatric Disabilities in Higher Ed.. 0.0 Hours. Class-7.5. Clinical-0.0. Lab-0.0. Work-0.0

HEA 8926. Primary Aerobic Instructor Certification. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to certify aerobic instructors in primary aerobics through the american aerobics association. Class includes: aerobic class structure and design, anatomy and physiology, emergency procedures, cardiovascular physiology, and certification exam.

HEA 8927. Step Aerobic Instructor Certification. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to certify aerobic instructors in step aerobics through the american aerobics association. the course includes: step safety guidelines, injury prevention spri stop straps, workout, upper body anatomy, propulsion and plyometrics, certification exams.

HEA 8928. Sprots Nutrition Consultant Certification. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to certify individual as a sports nutrition consultant through the american aerobics association. Course includes: setting goals, energetics, designing your diet, carb loading, sports specific nutrition and certification exam.

HEA 8929. Personal Fitness Trainer Certification. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to certify individuals as personal fitness trainers through the american aerobics association. Course includes strength conditioning, cross training, fitness testing, body composition, injury prevention, designing fitness programs and certification exam.

HEA 8930. Exploring Medical Language. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to allow students to master medical language quickly and easily. Word parts are taught according to body systems. Medical terms not built from word parts are learned. Anatomical terms for each body system are included.

HEA 8932. Exploring Medical Language Part II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to allow students to master medical language quickly and easily. Word parts are taught according to body systems. Medical terms not built from word parts are learned. Anatomical terms for each body system are included.

HEA 8956. CPR-Adult/Infant/Child/American Heart Association. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is intended for licensed and certified healthcare professionals.

HEA 8957. Cpr/Aadult-Renewal-Aha. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Review and update on cpr material and manikin practice. Includes written test and satisfactory performance of one-rescuer cpr.

HEA 8958. CPR-Adult-American Heart Association. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
One person CPR is a basic life-saving technique for sudden cardiac arrest. Obstructed airway and rescue breathing are also included. Textbook and pocket mask required. This class is for the general public.

HEA 8960. 1st Aid & Infant/Child Cardiopulmonary Resuscitation-American Heart Association. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook Required. Basic emergency care for the general public.

HEA 8963. American Heart Association First Aid/ CPR/AED. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
The AHA Heartsaver First Aid/ CPR/ AED Course is taught by an instructor who is affiliated with, and authorized to teach by, the American Heart Association. Participants will learn: First aid basics Recognition of Medical emergencies Recognition of Injury emergencies Recognition of Environmental emergencies Adult CPR and AED use Adult choking (foreign body airway obstruction) Child CPR and AED use (optional) Infant CPR (optional) Infant choking (optional) CPR instruction includes high-quality compressions, airway management, breathing, and how to use a mask. First Aid instruction includes bandaging, bleeding, wounds, choking, shock, seizure, fainting, broken bones, sprains, burns, bites, stings, poison, and temperature-related conditions. Successful completion of the Heartsaver First Aid CPR AED Course includes three parts.
HEA 8964. First Aid and CPR-Adult-Renewal. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Review of standard first aid skills and recertification in ability to perform cpr. the first aid course teaches the standard skills the student needs in order to act as the first link in the EMS system. Includes such subjects as bleeding, burns, fractures and strokes. the cpr is a review of choking and rescue breathing skills.
HEA 8965. CPR/Cardiopulmonary Resuscitation - AHA American Heart Association. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Course provides instruction and practice in techniques of infant and child cardiopulmonary resuscitation, rescue breathing and airway obstruction. Textbook required. This class is for the general public and daycare workers who attend children ages 1-8.
HEA 8966. 1st Aid/CPR Adult/Inf/Child. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Covers basic first aid and CPR for all ages.
HEA 8969. First Aid/Adult. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course teaches the standard first aid skills the student needs in order to act as the first link in the EMS system. Includes such subjects as bleeding, burns, fractures and strokes.
HEA 8971. First Aid-Infant/Child. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach basic first aid skills needed to care for an injured child.
HEA 8982. CPR-Adlt/Inf/Child-AHA-Renewal. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is intended for licensed and certified healthcare professionals.
HEA 8990. Health Unit Coordinator Review for Certification. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
HEA 8991. First Aid Instructor. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach the skills necessary to instruct others to teach first aid skills and knowledge. the focus is on methodology and learning styles.
HEA 8995. Chiropractic Assistant’s 50 Hr. Basic X-ray. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides the chiropractic assistant with knowledge and understanding of the radiologic procedures relative to the practice of chiropractic. the student will be able to assist the doctor of chiropractic in taking and processing x-rays of the appendicular and aerial skeleton.
HEA 8996. Physical Assessment for Health Care Professionals. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as an introduction to history taking and physical exam. Course is taught as an overview of history and physical for health care professionals.
HEA 8997. Public Access Defibrillation. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to prepare the student to apply an automatic/Semi-automatic defibrillator to a pulseless and breathless patient. The student may be trained in healthcare or be a layperson. At the completion of this class, the student will be able to: explain defibrillation and the role of CPR and correctly operate an automatic/Semi-Automatic defibrillator. (pre-Requisite: adult cpr or healthcare provider cpr.).
HEA 8998. CPR Adult/Infant/Child Heartsaver. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
Textbook and pocket mask required. This class is for the general public and daycare workers.
HEA 8999. Heartsaver CPR Adult, Infant, Child Renewal. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Two-year credential (card). The Heartsaver CPR Adult, Infant, Child Renewal course is designed to review CPR and relief of foreign body airway obstruction to lay rescuers that are expected to respond to emergencies in the workplace. It is specifically designed for lay rescuers who are required to obtain a course completion card. Current textbook and pocket mask required.

Health Information Technology (HIT)

HIT 7000. ICD-10 Medical Coding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
ICD-10 is an upgraded diagnostic and procedural medical coding system that, by law, must be implemented throughout the healthcare industry by October 1, 2014. Because this new system is radically different, it’s important to prepare now. This online program offers you comprehensive, robust training in diagnostic and procedural coding, using the ICD-10-CM (diagnostic) and ICD-10-PCS (procedural) coding manuals. You will get detailed instructions for using the coding manuals, understanding the coding guidelines, and accurately applying the ICD-10 coding steps. There are more than 40 quizzes and exams for diagnoses and procedures by body system to test your knowledge and understanding. This program is for anyone in the healthcare industry who wants to master ICD-10 medical coding. Offered in partnership with ed2go. Textbooks included. Some knowledge of medical terminology is required. Education in anatomy and physiology is strongly recommended, but not required.

Healthcare Management (HMT)

Heavy Equipment Maintenance (HET)

HET 7115. Electronic Engines. 0.0 Hours. Class-330.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturer?s specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.
HET 7128. Medium/Heavy Duty Tuneup. 0.0 Hours. Class-330.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces tune-up and troubleshooting according to manufacturer? specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

Heavy Equipment Operation (HEO)
Historic Preservation (HPT)

Home Economics (HEC)

Homemaking (HMK)

HMK 8300. Home Decorating Basics. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
If you are obsessed with decorating shows on TV, but aren’t sure where or how to begin, join us in this introduction to home decorating. You will learn the elements of interior design, as you complete several in-class, hands-on activities to you launch your own home projects. Class time may include several outside field trips to supplement in-class learning.

HMK 8301. Home Decorating Reloaded. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Join CPCC to dig deeper and apply a heightened awareness to the basics of personal home decorating. Learn how to add warmth and drama to your rooms with window treatments and lighting. Create your own personal style with art and accessories. Learn the art of “shopping out of the box”. Explore ways to create a welcoming exterior, and how to bring the freshness of nature into your home.

HMK 8302. Designing Your Dream Kitchen. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn from a pro what it takes to budget for, plan, and design the kitchen of your dreams! Questions such as whether to renovate or redo completely will be discussed. Design topics will include the selection of cabinetry, countertops, lighting, hardware, flooring and everything it takes to make a kitchen “really cook”. Also included will be a class on the latest in kitchen trends; the outdoor kitchen.

HMK 8304. Decorating for Singles - Creating Your Singular Space. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Finally, a home of your own. A great thing about being single is the ability to create an environment that is uniquely you. Rather than be daunted by the task of decorating, learn to pinpoint your needs, develop your personal style and set realistic goals and a budget to create a space that is a comfortable reflection of your unique personality, plus a welcoming place to entertain guests. This class is tailored specifically to singles, reflecting the single lifestyle and decorating choices.

HMK 8310. Feng Shui-The Art of Placement. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Feng Shui is a popular decorating technique started over 3,000 years ago which focuses on finding the “perfect site” in your home or surroundings. Learn the strategies home staging consultants use to achieve a balanced, harmonious effect in a home and the psychological effect colors have in a home. Students will review three separate floor plans using the principles of Feng Shui and then draw and apply these principles to their own home’s floor plan.

HMK 8395. Watercolor With Fabric. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
Paint with color-create watercolor backgrounds! Explore techniques to manipulate color in fabric to create a small wall-hanging. Learn terms associated with this technique. Starter kit available from instructor at first class (approx. $25.00).

HMK 8397. The Art of Quilting. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Quilt classes are the new quilting bee! Quilts today are fashionable and sought after upscale decor and a recognized art form. Small quilt squares can be used as wall hangings and larger quilts as wall murals in designer homes. Increase your overall understanding of quilting terms and processes as you build upon your quilting skills. Traditional as well as contemporary approaches to quilting will be explored. Beginning students will finish one quilt block, which can then be turned into a pillow, a quilt (quilt in a pillow), a small wall hanging or the beginning of a larger quilt. Work will be done by hand and on college-provided sewing machines. Both beginners and established quilters are welcome in this class!!

HMK 8398. Creating Heirlooms & Keepsakes. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Experienced quilters: create an intimate and lasting gift for your children, grandchildren, friends or for yourself! Piece together patterns such as Bow Tie, Drunkards Pass, Diamonds, Hexagons and others in this smaller, more advanced class.

HMK 8400. Redesign - the Art of Decorating With What You Have. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Using your current possessions, learn how to transform your home into a more inviting, re-invigorated living space. Work with an established interior designer and home stager and pick up tips and tricks to restyle your home. And best of all, minimize your outlay of expenses by recycling your current, beloved pieces into your new home design plan!.

HMK 8410. Organize Your Home Office. 0.0 Hours. Class-3.5. Clinical-0.0. Lab-0.0. Work-0.0
Whether you run a business out of your home or a household, an organized office is crucial to your success. Learn how to control clutter, handle mail in ten minutes or less, basic ergonomics, ten things every home office needs and how to manage those growing piles of paper. Bring a notebook!.

HMK 8727. Sew a Memory "Tee" Quilt. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Do you want to preserve a memorable place in time, create a unique gift for a special occasion or recognize a rite of passage? Let us show you how to sew a one-of-a-kind keepsake from school T-shirts, concerts, sporting events or just "because." These quilt tees make truly unique gifts for graduations, weddings or other life events. Please note: Previous sewing experience is required. You will need to be familiar with threading a machine, winding and installing a bobbin and sewing stitches in this class. Work will be done by hand and on college provided sewing machines.

HMK 8741. Made to Fit - Easy Alterations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn quick and easy ways to make new or gently-worn clothing fit. You?ll learn the skills needed to master basic, common alterations and garment repairs. Our expert instructor will guide you as you take your sewing skills to the next level and master money-saving alteration techniques such as repairing a seam, hemming a garment or repairing a zipper. Participants should come to class with basic machine sewing skills.

HMK 8742. Sewing for Children - Quick, Easy Boutique Style Dresses & Skirts. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Have you ever seen a pretty, unique little girl’s dress and thought "I wish I could do that?" Now you can! In this class learn how to make simple, unique dresses from pillow cases as well as master strip sewing for a finished dress or pretty swirly skirt. You will learn how to personalize your creations by using colorful or vintage materials and pillow cases, how to finish them with silk ribbons and how to create one-of-a-kind applique’s for further embellishments.
HMK 8750. How to Sew Simple, Unique Handbags. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn to sew a simple purse and design your own unique one-of-a-kind handbag! Using decorative and creative stitching, appliques, trims, and embellishments, you will create an exciting accessory for personal use, gifts, or profit! Previous sewing experience required!

HMK 8751. Sewing I. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
If you are experienced in sewing but need the guidance and motivation to start taking on new and more interesting projects, we’re waiting for you! Enhance your current sewing skills, consider fabric selection and preparation and complete an instructor-approved project using our machines. PREREQUISITE: HMK 8757 or previous sewing experience required. Please note: You will need to be familiar with a machine, winding and installing a bobbin and sewing stitches in order to be successful in this class.

HMK 8752. Sewing II. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Build on basic skills acquired in HMK 8751 and learn additional sewing techniques. The emphasis of this course will be on the construction of a garment: the selection of patterns and fabrics, inter-facings, collars, sleeves and buttonholes will all be covered.

HMK 8757. Introduction to Sewing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Discover the pleasures of sewing in this introductory class where you will learn all about fabrics, patterns and the supplies needed to begin sewing, including needles! We provide the machines to get you started.

HMK 8758. Sewing for Your Home - Easy, Affordable Window Treatments. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Save money and add your own personal style to your home as you design and sew simple valances and curtains. Learn how to measure windows, calculate repeats and finishing techniques, choose the proper fabrics and patterns for your project, and perfect the additional sewing techniques necessary to achieve a successful window dressing. Prerequisite: HMK 8757 or basic sewing skills and machine operation knowledge.

HMK 8767. Sewing Machine Mastery. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Have you recently purchased a sewing machine and need help learning how to use it? Then this is the class for you! Learn which presser foot to use with which stitch, how to make the most of “all those dials and knobs” and a myriad of other tips to get the most out of your machine. We will also review how to wind a bobbin and thread the machine, as well as how to clean it for optimal sewing performance. Don’t have a machine? Then “test drive” one of our machines before you buy. Note: Bring your machine, power cord, foot pedal, all accessories and manual to class. Course Note: Students should provide their own machines.

Horticulture (HOR)

HOR 7011. ISA Certified Arborist Exam Review Course. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 2 day course will better prepare students to sit for the ISA Certified Arborist Examination. All sixteen (16) domains of the exam will be reviewed: Safety, Biology, Soils, Water, Fertilization, Working in Trees, Pruning, Tree Support Systems, Tree ID, Tree Selection, Installation, Assessment, Diagnosis, Plant Health Care, Trees & Construction and Urban Forestry. Students should have read and studied Arborist Certification Study Guide - Sharon Lilly (ISBN 978-1-881956-69-3) prior to attending this class. Please note: This is an Exam Prep course only. Students must register separately for the ISA Certified Arborist Examination.

HOR 7012. North Carolina Landscape Contractors’ Exam Review Class. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 15-hour class, held over three evenings, will better prepare students to sit for the North Carolina Landscape Contractors’ Examination. The material included in the general landscaping multiple choice exam and the Landscape Design exam will be covered; the plant ID portion is not included. Students should have read and studied the North Carolina Landscape Contractors Registration Board Study Manual which is available through NCLCRB at nclcrb@nclcrb.org. Please note: This is an exam prep course only. Students must contact the NCLCRB for the exam registration.

HOR 7013. North Carolina Department of Agriculture Pesticide Applicators’ Exam Review Class. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This eight-hour class will better prepare students to sit for the North Carolina Department of Agriculture Pesticide Applicators’ Examination. The material included on the CORE and Ornamentals & Turfgrass Pest Control exams will be covered. Students should have read and studied the three manuals: Applying Pesticides Correctly, N.C. Pesticide Laws & Regulations, and Ornamentals & Turfgrass Pest Control (available from http://www.agr.state.nc.us/SPCAP/pesticides/CATEGE XP.HTM). Please note: This is an exam prep course only. Students must contact the North Carolina Dept. of Agriculture for the exam registration (919.733.3556).

HOR 7014. Greenhouse & Landscape Skills. 0.0 Hours. Class-330.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the basic fundamentals of applied botany, plant identification, propagation, greenhouse operation, landscape installation and maintenance. Students will master many of the skills necessary to qualify for entry level positions in the horticulture field.

Hospitality, Travel & Tourism (HOS)

HOS 8000. Greenway Theater Package. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

HOS 8002. Favorite White Wines. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
See, swirl, smell, sip, savor, and summarize favorite white varietal wines.
HOS 8003. Favorite Red Wines. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
See, swirl, smell, sip, savor, and summarize favorite red varietal wines.

HOS 8004. Dine With Distinction. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Five course dining tutorial that teaches the necessary skills to dine like a diplomat: ordering wine, what silverware to use, whose bread plate and glassware is whose, dining tips not to be ignored.

HOS 8005. Great Grapes. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the six basic steps of wine appreciation: see, swirl, smell, sip, savor, and summarize favorite white and red wines.

HOS 8010. Food & Wine Pairing. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Prepare quick, easy, and delicious finger foods and experience the magic of pairing them with the right wine. You’ll leave with great new recipes and confidence in choosing the right wines for your next party.

HOS 8104. Baking 101. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Class begins with a discussion of the fundamentals of baking, including selecting and using ingredients, the roles of temperature and moisture, measuring and combining, and terminology. From there, students learn a variety of important pastry techniques ending in some wonderful finished baked goods.

HOS 8106. 5-Minute Sauces. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This class features fabulous sauces that can be prepared in minutes. The sauces range from sinfully rich to delightfully non-fat and can be served with a variety of foods.

HOS 8110. Ragin Cajun. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Experience southern Louisiana’s famous “down-home” cooking. You’ll learn to make perfect “roux,” the basic of many Cajun recipes and prepare authentic Creole dishes.

HOS 8112. Global Seafood Entrees. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
In this flavor-packed class, students will learn techniques for cooking fish and shellfish, as well as a variety of exotic and simple marinades and sauces.

HOS 8113. Classic Sauces. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed to take the mystique out of sauce making. You’ll learn the proper techniques for making traditional sauces including flour-based sauces and emulsions. Popular variation sauces will be paired with a traditional dish to show it off.

HOS 8115. Vegetable Workshop. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
If your vegetable repertoire needs expanding, or you want to learn proper methods for preparing a variety of vegetables, this is the class for you. In this class, you learn how to identify and choose from the season’s freshest produce. You will learn how to store, prepare and cook these nutritional and culinary marvels.

HOS 8116. Tapas Party!. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Tapas are no longer just appetizers found in Spanish restaurants. With so many great dishes and flavors to choose from, people are “grazing” on meals made entirely of these delectable little dishes. Learn how to make an assortment of Tapas you can easily make for friends and family.

HOS 8118. Great Cookies. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Goodbye, Mrs. Fields. Learn the secrets of turning a single dough into a variety of awesome holiday and specialty cookies.

HOS 8120. A Diabetic Dinner Made Easy and Delicious. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
In this class, students will prepare a complete, easy and delicious diabetic dinner.

HOS 8121. Favorite Recipes from the Chefs of Charlotte. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
This entertaining class features recipes from Catherine Rabb, owner of Fenwick’s Restaurant.

HOS 8122. Delicious Diabetic Desserts. 0.0 Hours. Class-5.0.
Clinical-0.0. Lab-0.0. Work-0.0
Everything from cookies to puddings to cheesecake.

HOS 8123. Diabetic Sauces, Dressings, and Marinades. 0.0 Hours.
Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
Easy and delicious diabetic sauces, dressings, and marinades. Covers salads, entrees and everything in between.

HOS 8201. Planning Your Successful Trip. 0.0 Hours.
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will cover what you need to know to plan your trip. Using checklists for what questions to ask, where to get the information for your trip and the best price for your dollar.

HOS 8202. Europe by Train, Relive the Past, Discover the Future. 0.0 Hours.
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Take the mystery out of traveling by train by explaining the "how to" use the rail systems of Europe.

HOS 8203. Panoramas in Motion, The Swiss Travel System. 0.0 Hours.
Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Make a traveler’s dream come true in Switzerland using the Swiss Rail Pass.

HOS 8205. Travel Reservations. 0.0 Hours.
Class-74.0. Clinical-0.0. Lab-0.0. Work-0.0
The Travel Certificate Program will teach the student to become proficient on the state-of-the-art Apollo/Galileo global reservation system used expansively throughout the travel and tourism industry. Basic computer skills are required.

Human Resources Development (HRD)

HRD 6001. Self-Directed Job Search. 0.0 Hours.
Class-77.0. Clinical-0.0. Lab-0.0. Work-0.0
In this course, students learn the skills needed to obtain employment. On completion of this course, students should be able to complete an employment application correctly, write a resume, find job leads, and perform well in interviews.

HRD 6015. Introduction to Computer Skills. 0.0 Hours.
Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to introduce computers and computer terms to unemployed and underemployed adults. Students will learn to use computers to search for jobs, write resumes and cover letters and to develop email capabilities.

HRD 6018. CreditSmart Economic Literacy. 0.0 Hours.
Class-25.0. Clinical-0.0. Lab-0.0. Work-0.0
HRD 6019. Career Readiness/Pathways. 0.0 Hours. Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0

HRD 6025. Employability Lab. 0.0 Hours. Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0

HRD 7000. Career Planning and Assessment. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0

HRD 7003. Academic Planning. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

After completion of this course students will be able to demonstrate how educational achievement and life experiences relate to educational opportunities.

Human Services (HSE)

Hydraulics (HYD)

HYD 7001. Hydraulics & Pneumatics. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
An introductory course in industrial fluid power systems emphasizing fluid power applications, properties, air & hydraulic cylinders, and pressure & flow control circuits.

HYD 7112. Hydraulics-Medium/Heavy Duty. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

Industrial Science (ISC)

Information Systems Security (SEC)

SEC 7000. Series 7 Exam Prep. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Pass the Series 7 licensing exam, with our intensive 5-day review course. Our live course is designed to make your prep-time more productive and help you to understand difficult material. Securities experts deliver material in a concise and easy-to-understand manner, while providing important topical insight and valuable exam tips and strategies. A Series 7 license qualifies a candidate for the solicitation, purchase, and/or sale of all securities products, including corporate securities, municipal securities, municipal fund securities, options, direct participation programs, investment company products, and variable contracts. To take the Series 7 examination, you must be sponsored by a member firm of FINRA or a self-regulatory organization such as an exchange or state regulator.

Insurance (INS)

INS 7010. NASD Series 6 & 63 Review. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as review for individuals pursuing their Series 6 & 63 national license through the National Association of Securities Dealers (NASD). It is also a great course for anyone wanting to learn more about their own personal investments. The Series 6 portion covers materials pertaining to mutual funds and variable contracts. The Series 63 segment primarily focuses on Blue Sky Laws (also referred to as The Uniform Securities Agent State Law Exam) which most states require of those involved in securities transactions. The class is designed to serve as a review of those items that need further clarification; therefore, individuals are encouraged to spend approximately 30-40 hours independently studying the required text prior to taking the review course.

INS 7011. NASD Series 7 Review. 0.0 Hours. Class-54.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to serve as a review for individuals pursuing their Series 7 national license through the National Association of Securities Dealers (NASD). It is also a great course for anyone wanting to learn more about their own personal investments. The Series 7 license allows individuals to sell mutual funds, variable contracts and stocks listed on the various stock exchanges. A few review topics include: equity markets, bond markets, option and margin trading, tax advantage investments, federal laws, NASD regulations. The class is designed to serve as a review of those items that need further clarification; therefore, individuals should spend approximately 40-50 hours independently studying the required text prior to taking the review course.

INS 7020. Medicare Supplement/Long Term Care. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This is a 15-hour pre-licensing course that prepares students to sit for the Medicare Supplement /Long Term Care Licensing Exam. Upon completion of this course, students should be able to explain Medicare A & B and Medicaid to a client; aid the client in selecting the Medicare Supplement and Long Term Care products necessary to the agent/client relationship; and complete the Medicare Supplement/Long Term Care License Exam. Students must attend all (100%) classes. Books included in tuition fees.

INS 7030. Introduction to Insurance Services. 0.0 Hours. Class-70.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to acquaint students with property and casualty customer service procedures. Training will be in basic product knowledge, billing process, endorsements, claim adjusting process, agency management systems, computer skills, letter writing, and telephone etiquette. Upon completion of this course students will be better prepared to work within an agency of customer service environment. This course is content intensive. Students should purchase the textbook and be familiar with Chapters 1-9 prior to the first class.

INS 7049. Insurance Ethics. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
All resident Agents and Adjusters with North Carolina CE requirements who hold one or more of the following licenses: Property, Casualty, Personal Lines, Life, Accident Health Sickness, and Variable Life/Variable Annuity Products and Adjusters (company/independent, public and self-employed) are required to take a mandatory ethics course by December 31st every biennial period.
**Corporate and Continuing Education Courses**

**Insurance (INS)**

**INS 7051. Flood Insurance. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

All resident Adjusters and Agents (company/independent, public and self-employed) with North Carolina CE requirements, are required to complete this mandatory flood course by December 31st every biennial period.

**INS 7501. N.C. Property Insurance Agent (Pre-Licensing). 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

This course is approved by the North Carolina Department of Insurance (NCDOI) for individuals seeking a Property Insurance agent license, and recommended for those seeking an adjuster license. You will learn general terms and concepts associated with property insurance, personal and commercial insurance coverage and N.C. statutes and regulations. Upon successful completion, students will be eligible to sit for the state Property Insurance Agent Exam. Students seeking an agent license must attend 100 percent of the classes.

**INS 7502. N.C. Casualty Insurance Agent (Pre-Licensing). 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

This course is approved by the North Carolina Department of Insurance (NCDOI) for individuals seeking a Casualty Insurance agent license, and recommended for those seeking an adjuster license. You will learn general terms and concepts associated with casualty insurance, personal and commercial insurance coverage and N.C. statutes and regulations. Upon successful completion, students will be eligible to sit for the state Casualty Insurance Agent Exam. Students seeking an agent license must attend 100 percent of the classes.

**INS 7505. NC Property Insurance Review. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

This course is a review of the topics covered on the NC Property Insurance Agent Exam, including general terms and concepts, personal and commercial insurance coverage, and N.C. statutes and regulations.

**International Business (INT)**

**INT 7210. Certified Global Business Professional. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Start out strong or demonstrate your knowledge in international business by preparing for the credential by exam designation of Certified Global Business Professional (CGBP). Offered by the North American Small Business International Trade Educators Association (NASBITE), this credential provides a benchmark for competency in global commerce. It can give you the recognition you deserve and demonstrate your commitment to professional development. The prep and exam cover four areas: global management, global marketing, supply chain management, and trade finance. This program is for you if you’re a NASBITE member, work in a large or small company with global interests, or a practitioner, an educator or a student engaged in international trade and global commerce. The credential is also suitable if you work in trade-assistance organizations, trade-promotion agencies and related educational institutions. Offered in partnership with ed2go.

**Internet Technologies (ITN)**

**Journalism (JOU)**

**JOU 7110. Introduction to Journaling. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

If you’ve ever wanted to try journaling, this course will provide answers to your every question. You’ll discover the different types of journaling (including dream journaling), and sample a buffet of journaling techniques, exercises, tools, and resources. We’ll cover everything you need to know about journaling, including a seven-step process that will ease you into writing a journal, even if you’ve never journaled before. You’ll get detailed instructions on developing, decorating, and customizing your journal, and you’ll learn exciting new ways to express yourself and develop your creativity. You’ll find out how you can use your journal to explore your thoughts, feelings, and values, and you’ll learn how to use your journal to support you as you develop true emotional well-being. You’ll also understand how journaling can ease the stress of unwanted change throughout the course of your life. You’ll even discover how journaling can help you choose the best career for you or advance in your current career. Offered in partnership with ed2go.

**JOU 8000. Science Fiction and Fantasy Writing. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Enter the world of speculative fiction and learn to structure, polish and prepare your science fiction and fantasy (SF & F) ideas and writings for publication. This course is designed for writers at all stages of development, who have a keen interest in writing science fiction or fantasy stories, under the guidance of a seasoned SF & F author. In class, you will learn how critiques (both giving and taking) are an essential part of any successful writing process. Students will first work on structuring their stories, learning and using the building blocks of all fiction writing, and then submit finished stories to the class and instructor for constructive criticism, feedback and refinement during the latter sessions of the class.

**JOU 8100. Food Writing for Newspapers, Magazines, And Cookbook Authoring. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Food writing offers a "buffet" of opportunities. Learn the nuances of writing for magazines or newspapers and gain insight into how to publish a cookbook. This six-week course details the riting process and offers tips on how to pitch a story for publication. Topics covered include: different types of food journalism, the writing process, writing a restaurant review, pitching a story idea, compiling a cookbook and writing receipes. Students must activate their SNAP account prior to the start of class.

**JOU 8101. News Writing for Print, Online and Broadcast Journalism. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Learn the ins-and-outs of news writing from a "pro" and gain valuable insight into the world of journalistic news. This six-week course details the riting process and offers tips on how to pitch a story for publication. Topics covered include: different types of food journalism, the writing process, writing a restaurant review, pitching a story idea, compiling a cookbook and writing receipes. Students must activate their SNAP account prior to the start of class.

**JOU 8102. Follow Your Tale. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Alice was curious so she followed the white rabbit. You are curious about writing, but you feel stuck. Have you been following your rabbit’s tale? In this course you will have the opportunity to follow your own rabbit tale. We will read, write, and discuss the work of published authors as well as fellow classmates in each class period as we take the fuzzy (tale) of an idea and follow it down its rabbit hole. You have an image that wants to be a poem. Perhaps you have a character that needs to find its story, etc. All genres are welcome. See you in Wonderland!
JOU 8103. Writing Across Genres. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
So you want to write, but you can’t seem to get started on that novel. Have you ever considered starting a shorter piece first? In this course writers will have the opportunity to learn about and try their hand at writing in short forms (flash fiction, micro essays, prose-poetry, dramatic monologues) from across the genres. Pieces produced in this course may even be the buds for longer works. Strategies for expanding these shorter pieces (or publishing/enjoying them as is) will also be addressed.

JOU 8109. The Art of Short-Shorts-Capturing Your Important Moments on Paper. 0.0 Hours. Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
Everyone has stories to tell, so here’s a class to help you get your most memorable moments on the page - in creative ways! "Short-shorts" writing focuses on capturing miniature word-snapshots of the important moments of your life. In-class writing and homework assignments will yield 12 short-shorts. So bring your memories to class and let’s get started!

JOU 8111. The Healing Power of Words. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
What benefits can writing provide - physically, mentally, spiritually? Are some ways of writing more healing than others? And can we create quality literary work as we heal? In this workshop that incorporates Dr. James Pennebaker’s groundbreaking ideas, we’ll discuss and implement ways to use writing as a transformational tool. And, if you’re looking, you’ll find the genesis of new poetry, creative non-fiction, and/or fiction. WARNING: Laughter likely. Inspiration guaranteed!

JOU 8113. Advanced Creative Writing: Creativity Taken to the Next Level. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Do you have a fiction or nonfiction story in the making? Are you feeling a bit uncertain about how to pull it together? Then this course is for you! You will examine the details of your creation and get tips on every facet of crafting a story, including structure, theme, motif, opening and more. With careful attention to detail your story will come alive. Learn how to create a page-turner that touches your reader’s heart. Class time will include lecture, discussion and writing exercises.

JOU 8114. Creative Writing. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
Are you ready to test the waters of creative writing but not sure where to start or how? Maybe you’ve written before, but long ago. Or, maybe you never had an opportunity to learn. This course will guide you as you let your creative thoughts roam. You will get tips on craft and practice as you use various imagination-stretching exercises, then write through in-class readings, discussions and assignments, to build upon those ideas. This course will focus on fiction, creative nonfiction and depending on interest, poetry as a means to enhancing and structuring your writings. Best of all: no exams or grades to worry about!

JOU 8115. Telling Your Story. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Have you ever looked at your life and wondered how to make sense of it? We all have. Writing forces us to think through our life experiences, one sentence at a time. In the process, memories become coherent and we find a sense of purpose. This class will show you how to write about something that matters to you, whether a favorite relative, or a lesson learned through personal hardship or happier times. You’ll learn how to turn an idea into a story or essay and at the end of six weeks, you’ll have a written work to share.

JOU 8117. Write Yourself: a Journey of Self-Discovery and Self-Expression. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
Take a trip through the writing process with Charlotte’s award-winning author Maureen Ryan Griffin. Capture truth, imagination and passion as you learn to “Write From The Heart” by using your writing as an on-going means of self-discovery and self-expression. Come explore the techniques and processes that will enhance your journey!

JOU 8118. Delicious Words: Food For The Soul Stories. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Food not only nurtures us, it is also a rich source of metaphor and memory. Come nibble on cookies from well-known author Maureen Ryan-Griffin’s own mother’s recipes as you write your own delicious memories. Learn how to begin your own food memoir or family/community cookbook, write a food-related essay, and/or leave a legacy to share with loved ones. Class is taught by Barbara Lawing, well-known local writer.

JOU 8119. Write Yourself!. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
"Writers write." So says Anne Larnott, author of Bird By Bird. It’s that easy! This course is for practicing writers, closet writers and as-yet-to-pick-up-the-pen writers who are interested in personal discovery and growth. Bring pen and notebook and reap writing’s benefits - physical, mental, emotional and spiritual. We’ll play with techniques and prompts to spur your imagination and look at how to turn your drafts into poems, stories, articles and/or essays. Class will be taught by Maureen Ryan Griffin, local award winning author.

JOU 8120. I Want to be a Writer You Go From Here?. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Now what? Identify your writing interests and skills and build upon them to fit into today’s market. Learn to prepare pieces for submission and make use of local resources and support networks for writers.

JOU 8121. A Writers Guide to Successful Publication. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
A concentrated workshop designed for the writer whose goal is publication. Receive instructions for producing a professional manuscript, examine publishing industry structure, and learn strategies for finding an appropriate publisher. Resources for locating a literary agent are revealed.

JOU 8122. Creating a Sense of Place. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
What is a "sense of place" and how can writers capture the essence of a setting? Class will include readings and creative exercises that will promote open discussion. Students are encouraged to bring passages from the works of their favorite authors and examples of their own work.

JOU 8123. Write Away and Home Again. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Capture the spirit and specific details of your upcoming or past trips in this class that focuses on keeping a travel journal. Learn brainstorming and writing techniques that will have your trip come alive on the page!

JOU 8124. Introduction to Contemporary Poetry. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Interested in reading, sharing, discussing, or understanding contemporary poetry? Then this course is for you! An eight-week “gathering” for the exploration and appreciation of contemporary poetry in an intimate workshop setting. Both writers and readers welcome. Students will be asked to purchase a book of contemporary poetry by the second class meeting for the purpose of sharing/study. A list will be provided by the instructor at the first class meeting.
JOU 8126. The Artist’s Way-Feeding Your Creative Self. 0.0 Hours.  
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0  
Whether you dream of being a writer, an artist or actor, a singer or dancer, 
or just want to experience more joy in your life, this class will point the 
way. Learn to tap into your creative energies through in-class and out-of-
class writing exercises and reading from, Julia Cameron’s, “The Artist’s 
Way.”.

JOU 8127. Creativity in the Work Place: the Artist’s Way At Work. 0.0 Hours.  
Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0  
“I am not a businessman, I am an artist,” says Warren Buffet. No one can 
dispute the success of this man in the business world, but what about the 
idea of business as art? If this concept is intriguing to you, join this class 
in exploration and problem solving.

JOU 8128. Crafting Characters That Connect. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
This course will focus on the basic principles involved in writing 
compelling, three-dimensional characters for short and long narratives. 
Aspiring novelists and short story writers will benefit as they analyze 
elements that make up a successful character. Students will examine 
character depth and growth, write dialogue, learn to identify a character?’s 
wants and needs and complete a character?’s autobiography. “Bring a 
composition book, pen, jump drive and favorite novel or short story to the 
first class. Upon enrollment in the class, you will receive an invitation for 
the class wiki site: http://createacharactercpc.pbworks.com. This is an 
online, editable website for class assignments, postings and student work 
and critiques. Go to the front page of the wiki, click on the link to request access. The instructor will respond via email. Then follow the instructions on the front page several days before 
the class begins. Suggested supplemental text includes “Characters & Viewpoint” by Orson Scott Card and “Teaching the Story: Fiction Writing in Grades 4-8,” will use her 15 years of experience 
leading the Society of Children’s Book Writers and Illustrators local 
critique group to talk about writing picture, chapter and young adult 
books as well as non-fiction and magazine articles. Upon enrollment 
in the class, you will receive an invitation for the class wiki site (http:// 
writing4children.pbworks.com), an online, editable website for class 
assignments, postings, student work and critiques. Go to the front page of 
the wiki, click on the link to request access. The instructor will respond via 
email. Then follow the instructions on the front page several days before 
the class begins. Suggested supplemental text: ?Teaching the Story: 
Fiction Writing in Grades 4-8.? Bring to class: Composition book, pen, red 
pen or pencil.

JOU 8132. Magazine Masterpieces. 0.0 Hours.  
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
Freelance feature writing is a staple of magazines, alternative weeklies 
and market their work.

JOU 8133. Writing for Children. 0.0 Hours.  
Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0  
What do Madonna, Sandra Day O’Conner and Judy Blume all have in 
common? They are all authors of books for children. While there is no 
easy, sure-fire way to get published, there are tricks of the trade that will 
help. In this hands-on workshop, Carol Baldwin, author of “Teaching the 
Story: Fiction Writing in Grades 4-8,” will use her 15 years of experience 
leading the Society of Children’s Book Writers and Illustrators local 
critique group to talk about writing picture, chapter and young adult 
books as well as non-fiction and magazine articles. Upon enrollment 
in the class, you will receive an invitation for the class wiki site (http:// 
writing4children.pbworks.com), an online, editable website for class 
assignments, postings, student work and critiques. Go to the front page of 
the wiki, click on the link to request access. The instructor will respond via 
email. Then follow the instructions on the front page several days before 
the class begins. Suggested supplemental text: ?Teaching the Story: 
Fiction Writing in Grades 4-8.? Bring to class: Composition book, pen, red 

JOU 8137. Short Story Marathon. 0.0 Hours.  
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
Writing is often a solo exercise, but some writers need a supportive 
and a deadline to get the writing done. This class will give you a 
little bit of both. At the end of the course, you will have completed three 
short stories and have a clear plan on how to structure your short stories 
going forward.

JOU 8143. Just Write! a Weekend Writing Workshop For Writers. 0.0 Hours.  
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0  
Dive into the world of writing with a weekend workshop for writers. 
This class is designed to help you find your words naturally and 
easily by writing quickly to prompts. Such prompts and working until 
the timer stops are proven to stimulate your creativity and remove your 
creative blocks. Whether fiction, short story, poetry or just capturing 
memorable experiences, this workshop will ensure writing success in a 
productive session. Write on your laptop or the page in this interactive 
session with other writers. New writers welcome, too.

JOU 8148. Novel Writer’s Marketing Toolkit. 0.0 Hours.  
Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0  
Designed to prepare and equip writers with everything from drafting a 
synopsis of your novel to marketing to publisher queries, the aim of this 
course is to help fiction writers in all genres learn how to polish, prepare 
and market their work.

JOU 8149. Marketing for Writers - How to Sell Everything You Write.  
0.0 Hours.  
Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0  
Discover how to find publishers for your articles, evaluate the market, deal 
with editors, sell your writings and stay organized for marketing success.

JOU 8150. Freelance Journalism: Writing to Sell. 0.0 Hours.  
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0  
Freelance feature writing is a staple of magazines, alternative weeklies 
and daily newspapers. Whether you’re interested in entertainment, sports, 
travel, business or profiles, this course offers a primer in the fundamental 
skills of interviewing, reporting, writing and editing - all of which go into 
creating the thoughtful, vibrant and well-constructed feature stories editors 
want. We suggest participants already have basic writing skills.
JOU 8154. Entertainment Writing for Fun and Profit. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Get an insider’s view on how to write successful entertainment stories for print and media, plus get useful tips on publishing and the Charlotte market. No longer relegated to feature sections entertainment writing is an integral and popular piece of news coverage in local communities and publications. This can become a lucrative career and fun way to express your opinion of bands, authors, plays and more. You will learn to write for front pages and for the growing entertainment community. Master the five keys of a successful entertainment article: the Q and A, profile, advance article, performance review and product review.

JOU 8155. Screenwriting Workshop. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
Do you have a keen interest in writing feature-length scripts or developing a script idea? Whether you are a fledgling screenwriter or have a work-in-progress, this workshop is for you. Class time will focus on generating a story idea, creating an outline, script organization and structure, pitching your idea and writing the scene. Students will learn to analyze narrative structure, openings and the all important elements of scenes. Classroom instruction will include lectures, discussions, writing exercises, reading of scenes from produced scripts and possible film viewings. Suggested supplemental text: “Screenplay” by Syd Field (Dell new edition).

JOU 8156. Screenwriting For The Director. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
Screenwriting for the Director will focus on the basic principles involved in writing for film and television, with emphasis on the issues and logistics involved in transitioning from script to screen. This course is beneficial for those aspiring to be writer-directors and/or creative producers. Students will analyze narrative structure, character and theme as it relates to production techniques and budget constraints. Instruction will include lectures, discussions, writing exercises, writing workshops, script readings, film viewings and possible in-class speakers. Suggested supplemental texts: screenplay by Syd Field, story by Robert McKee, The Art of Dramatic Writing: Its Basis in the Creative Interpretation of Human Motives by Lajos Egri and screenwriter’s problem solver by Syd Field.

JOU 8157. Screenwriting Workshop: The Spec Script, A Work-In-Progress. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Every aspiring screenwriter has a work-in-progress which could benefit from the input of a seasoned screenwriter and the fellowship and feedback of other writers Bring your script to this weekend workshop to hone your idea and writing the scene. Students will learn to analyze narrative structure, openings and the all important elements of scenes. Classroom instruction will include lectures, discussions, writing exercises, reading of scenes from produced scripts and possible film viewings. Suggested supplemental text: “Screenplay” by Syd Field, Dell (new edition). Also helpful: Final Draft 7 Professional Scriptwriting software.

JOU 8160. How to Sell a Book in Today’s Publishing Marketplace. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn about the nature of the publishing marketplace, how to find and evaluate ideas for books, query publishers, find an agent, research and write a book proposal, and understand the publishing contract.

JOU 8170. The Writer’s Guide to Small Press Publications. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Off your desk and onto the shelves. Take a look at the exciting world of small press publications. Learn about available resources for small press publications and focus on marketing and submitting your poems, essays, or short fiction to a particular audience. Class is taught by Barbara Lawing, well-known local writer.

JOU 8171. The Pros & Cons of Self-Publishing. 0.0 Hours.
Class-528.0. Clinical-0.0. Lab-0.0. Work-0.0
Many writers today choose to self-publish using a Print on Demand (POD) publisher. Gain an overview of the POD publishing model, what a POD publisher can and cannot do for an aspiring author, plus the advantages, disadvantages, requirements and cautions as you decide if this is the best route for you and your book. Instructor is a local, published author, experienced in the POD process.

JOU 8180. Publishing Your Book. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Everyone has a book idea, but few people see it through to the shelves. A major reason? They don’t understand the publishing process. Learn how to publish your fiction and nonfiction writing through the traditional publishing model and the rapidly growing self-publishing industry. This course presents strategies for refining your idea, presenting it to publishers and agents, and publishing it yourself. A book idea or completed manuscript is suggested, but not required, for in-class critiques.

JOU 8181. A Character Dialogue Workshop - Who Says Dialogue Doesn’t Matter?. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Few components of fiction and non-fiction can make or break your writing like dialogue. Not only does it have to be believable, it also affects pacing and plot. Do you know how to avoid “wooden” dialogue? What about the nine ways to alter and punctuate, to show off your character’s words to their best, most polished effect? If you want to learn this, and more, come join local author Maureen Ryan Griffin to study examples by accomplished writers and craft your own work.

JOU 8184. Fiction Writing Workshop. 0.0 Hours. Class-440.0.
Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for an intermediate writing student interested in taking their fictional writing project to the next level. During the first class hour the instructor will discuss a variety of topics related to creating fiction that captivates the reader. The second class hour will be devoted to working on individual projects with input from the instructor. Topics include beginnings, hero’s journey, role of the antagonist, dialogue, revision and seeking publication. A story or work-in-progress novel is strongly recommended. “Bring a composition book, pen, jump drive and a favorite novel or short story to the first class. Upon enrollment in the class, you will receive an invitation for the class wiki: http://writingworkshopcpcc.pbworks.com. This is a private, editable website for class assignments, online resources, student work and critiques. Go to the Front Page of the wiki and follow the instructions several days before class begins. Recommended reading: “The Inkwheart Trilogy” by Cornelia Funke and “Wired for Story,” by Lisa Cron. Suggested supplemental texts: “Teaching the Story: Fiction Writing in Grades 4-8” by Carol Baldwin. “Writing the Breakout Novel Workbook” by Donald Maass.

JOU 8185. Writing, Structuring and Publishing a Romance Novel. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Harlequin romance author AlTonya Washington brings her experiences from the writing industry to this class geared towards aspiring romance novelists. As an award-winning author, AlTonya will share insights, resources and advice on several aspects including hero- heroine character development, creation of dramatic scenes as well as her experiences writing for traditional publishing houses such as BET, Dafina Books and Harlequin romances.
JOU 8200. Writing for Women. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Love, parenting, health: these are some of the things women want to read about. Writing for women's magazines can be high-profile and lucrative and there are lots of opportunities for writers. Learn how to come up with great ideas, how to target your ideas and write stories that are filled with information and emotion. In-class writing assignments and an article written outside of class will be required.

JOU 8201. Travel Writing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Travel writing is a job most people just dream about. It is possible to sell articles based on your travels. Learn how to think like a travel writer, where to find magazines interested in travel articles, how to pitch ideas and the ethics of travel writing. Get in class assignments and finish an outside article during the course.

JOU 8202. Crafting a Great Query Letter. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The best way to capture an editor's attention - and land a lucrative writing assignment - is with a great query letter. This class will provide you with the essential tools for writing a great query letter. This hands-on workshop covers the basics like selecting a topic and researching publications as well as focusing on the specific details a query letter should contain and how to promote your expertise as a writer. In-class writing exercises will be required.

JOU 8203. Marketing Your Writing - an Editor's Perspective on Successful Freelancing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Are you looking to supplement your income? Maybe start a second career? Join us and work with an experienced editor who will give advice and tips on how and where to market your freelance work. Topics include creating ideas that will sell, pitching your piece, the submission process, including revisions and rewrites, understanding a basic publishing contract, payments, budgeting and time management; the important key to a freelance writer's success.

JOU 8204. Crafting the Personal Essay - The Essence of Memoirs. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The art of condensing your thoughts into essay format can be intimidating, but not if you have the right tools. Learn how to use a personal essay to capture your reader's interest, inform and share, and tie it all together with a satisfying conclusion. The personal essay can bring the reader into your world to share your experience and values; this class will help you learn how to do this. Three outside-of-class assignments will be required as part of the class.

JOU 8801. Creating a Blog Site: Personal Communication in the Electronic Age. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In today's electronic world of social networking, with websites such as Twitter that limit how much you can "tweet," you can still stay in touch personally through blogging. Learn to set up and create a blog dedicated to personal experience, writing and viewpoint. Understand organization, content and context. Define your writing style and grasp emotional issues involved in personal exposure in the blogosphere. You will also hone your writing skills for business and other forms of professional communication.

JOU 8829. Poetry Workshop. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Whether you want to be Tennyson or Ginsberg, if you write poetry or want to begin, this workshop is for you. Work on your own pieces in the company of fellow poets and poets-to-be while learning to polish and carefully critique various forms of poetry.

Laboratory Technology (LBT)

Language (LAN)

LAN 7002. Intermediate French. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Intermediate Conversational French is a practical and functional course for students who have previously taken French and are able to converse at an elementary level. Text: "French the Easy Way" by Christopher Kendris, Barron's Educational Series.

LAN 7026. Intermediate German. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Intermediate German focuses on improving conversational skills acquired in Beginning German. Vocabulary expansion and the introduction of tenses are practiced via speaking, reading and role playing about typical experiences found in German-speaking countries.

LAN 7030. Intermediate Spanish. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to further enable the student to communicate as a tourist, traveler or businessperson in a Spanish speaking country. The course will offer additional skills that have been attained during the first courses of Beginning Spanish. Emphasis will be placed on developing a general vocabulary and exposing students to cultural and geographical factors of Spanish speaking countries.

LAN 7031. Intermediate Spanish II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to further the student's knowledge of the Spanish language in a variety of settings. Intermediate Spanish II is appropriate for students who have completed Intermediate Spanish I, or have moderate proficiency in the language. Focus will be placed on further developing conversational skills.

LAN 7032. Intermediate Spanish III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 7036. Intermediate Italian. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Intermediate Conversational Italian will continue along the lines of Beginning Italian. Emphasis will be on speaking ability, supplemented by situational role playing. Grammar and reading supplements will be distributed for each class. Class will be structured to include content relevant to students’ needs such as business or travel.

LAN 7037. Intermediate Italian II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Intermediate Italian II will continue along the lines of Beginning Italian I, II and III and Intermediate Italian I. Emphasis will be put on improving students’ ability to communicate and the grammatical structures, concepts and vocabulary required for achieving this. Students’ needs and interest will be taken into consideration.

LAN 7038. Intermediate Italian III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Intermediate Italian III will continue along the lines of Beginning Italian I-III and Intermediate Italian I and II. Emphasis will be put on improving students’ ability to communicate on a more advanced level and the grammatical structures, concepts and vocabulary required for achieving this. Students’ needs and interests will be taken into consideration.
LAN 7040. Conversational Italian I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Conversational Italian I provides an opportunity for intensive communication in spoken Italian. Emphasis is placed on interactive communication through the discussion of newspaper/magazine articles, short stories, Italian music and other authentic material. Students' needs and interests will be taken into consideration.

LAN 7041. Advanced Italian Conversation I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Conversational Italian I provides an opportunity for intensive communication in spoken Italian. Emphasis is placed on interactive communication through the discussion of newspaper/magazine articles, short stories, Italian music and other authentic material. Students' needs and interests will be taken into consideration.

LAN 7301. Beginning French I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level course designed for those students who have had little or no prior experience in the French language. It is a lifesaver course for those students planning a trip to a French-speaking country with an emphasis on real life situations. Grammar will be introduced in each lesson.

LAN 7302. Beginning French II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide further and greater capabilities to communicate in a French speaking environment. The course will build on the background and skills attained during Course I, during any other equivalent course or during any real life experiences acquired during residence or work in a French speaking environment.

LAN 7303. Beginning French III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Course III is designed to develop the French language background and skills, oral and written, up to intermediate level. The course will further build on the foundations laid during Course II or any other equivalent course or any real live experiences acquired during residence or work in a French-speaking environment.

LAN 7305. Beginning German I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level conversational course and is geared toward those students who have not yet had any instruction in the target language. This is a lifesaver course for students planning a trip to the target country with an emphasis on real life situations. There will be an emphasis on grammatical construction.

LAN 7306. Beginning German II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide further and greater capabilities to communicate in a German speaking environment. The course will build on the background and skills attained during Course I, during any other equivalent course or during any real live experiences acquired during residence or work in a German speaking environment.

LAN 7307. Beginning German III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
Course III is designed to develop the German language background and skills, oral and written, to intermediate level. This course will further build on the foundations laid during Course II or any other equivalent course or any real live experiences acquired during residence or work in a German speaking environment.

LAN 7309. Beginning Spanish I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students with little or no exposure to the Spanish language. Students will be introduced to fundamental vocabulary, grammar, speaking skills and cultural traits that will allow them to communicate through written and oral exercises.

LAN 7310. Beginning Spanish II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second course in the series of three Beginning Spanish courses and is designed for the student who has completed Beginning Spanish I, or has had some exposure to the Spanish language. Focus will be placed on the continued development of speaking, listening, and writing skills.

LAN 7311. Beginning Spanish III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the third course in the series of three Beginning Spanish courses and is designed for the student who has completed Beginning Spanish I and II or has had exposure to the Spanish language. Focus will be placed on the continued development of speaking, listening, and writing skills.

LAN 7315. Beginning Italian I. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide the student with the basic capabilities to communicate in an Italian-speaking environment.

LAN 7316. Beginning Italian II. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is the second in a series of Beginning Italian courses and is designed for the student who has completed Beginning Italian I, or has had some exposure to the Italian language. Focus will be placed on the continued development of speaking, listening, and writing skills.

LAN 7317. Beginning Italian III. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will continue along the lines of Beginning Italian I & II. Paramount emphasis will be on speaking ability, supplemented by situations and role playing. More in-dept study of grammar will be included to improve speaking ability.

LAN 7318. Beginning Italian III. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of the Beginning Italian language series and is designed for the student who has completed Beginning Italian I and II or has had good exposure to the language. The course will focus on continued development of grammar, conversational skills and cultural review.

LAN 8010. Chinese Language & Culture for Business. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course has ten 2-hour class sessions; each session has two parts. Part one focuses on basic language skills for travelers; part two focuses on the Chinese value orientations and its implications in daily business decisions and interactions.

LAN 8014. Beginning Conversational Chinese. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an entry course in Mandarin, designed for those students who have had little or no prior experience in the language. Students will be introduced to fundamental vocabulary, grammar, speaking skills and cultural traits that will allow them to communicate in Chinese.

LAN 8015. Beginners Conversational Russian. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8016. Advanced Conversational Japanese. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8019. Beginning Chinese II. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students with a basic knowledge of the Mandarin Chinese language. Students will be introduced to more vocabulary, grammar, speaking skills, and cultural traits that will allow them to communicate through oral exercises.
LAN 8021. Introduction to French for Travelers. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students with basic communication skills helpful in traveling to places where French is the primary language. Students learn vocabulary and phrases essential for travelers to cope with common travel situations. Topics include making your way to your destination, booking accommodations, ordering a meal, shopping, meeting people, making telephone calls, requesting help in emergencies, and others.
LAN 8022. Introduction to Spanish for Travelers. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students with basic communication skills helpful in traveling to places where Spanish is the primary language. Students learn vocabulary and phrases essential for travelers to cope with common travel situations. Topics include making your way to your destination, booking accommodations, ordering a meal, shopping, meeting people, making telephone calls, requesting help in emergencies, and others.
LAN 8023. Introduction to German for Travelers. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students with basic communication skills helpful in traveling to places where German is the primary language. Students learn vocabulary and phrases essential for travelers to cope with common travel situations. Topics include making your way to your destination, booking accommodations, ordering a meal, shopping, meeting people, making telephone calls, requesting help in emergencies, and others.
LAN 8024. Introduction to Italian for Travelers. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides students with basic communication skills helpful in traveling to places where Italian is the primary language. Students learn vocabulary and phrases essential for travelers to cope with common travel situations. Topics include making your way to your destination, booking accommodations, ordering a meal, shopping, meeting people, making telephone calls, requesting help in emergencies, and others.
LAN 8032. Spanish Language and Culture for Business. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students who have a basic knowledge of the Spanish language and can communicate in simple sentences. Using the Spanish language in a business context.
LAN 8033. Spanish Language and Culture for Business II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Continuation of Spanish language and culture for business.
LAN 8038. French Language and Culture for Business. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for students who have a basic knowledge of the French language and can communicate in simple sentences. The course will focus on using the French language in a business context.
LAN 8040. Beginning Conversational Arabic. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
An introduction to the Arabic language, and to the Arabic culture. This course is mainly about conversation, so it will provide an oral approach to comprehending and communicating in Arabic. They will be able to read and write in elementary level.
LAN 8043. Advanced Spanish Conversational Hour. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8044. Advanced French Conversational Hour. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8045. Advanced German Conversational Hour. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8046. Advanced Italian Conversational Hour. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8301. Beginning French I. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level conversational course and is geared toward those students who have not yet had any instruction in the target language. This is a life saver course for students planning a trip to the target country with an emphasis on real life situations. There will be a minimal emphasis on grammatical construction.
LAN 8302. Beginning Conversational French II. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8305. Beginning Conversational German I. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level conversational course and is geared toward those students who have not yet had any instruction in the target language. This is a life saver course for students planning a trip to the target country with an emphasis on real life situations. There will be a minimal emphasis on grammatical construction.
LAN 8306. Beginning Conversational German II. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8309. Beginning Conversational Spanish I. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is an entry level conversational course and is geared toward those students who have not yet had any instruction in the target language. This is a life saver course for students planning a trip to the target country with an emphasis on real life situations. There will be a minimal emphasis on grammatical construction.
LAN 8310. Beginning Conversational Spanish II. 0.0 Hours. Class-22.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8311. Beginning Conversational Spanish III. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
LAN 8315. Beginning Conversational Italian I. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to enable the student to communicate verbally as a tourist, traveler, or business person in an Italian speaking country. The course will touch upon everyday situations and the vocabulary associated with them. Strong emphasis on conversation skills.
LAN 8316. Beginning Conversational Italian II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Course will be a continuation of Beginning Italian I. Course will began with a thorough review of the basics to ensure a good foundation, and each week new areas of conversation will be included. Strong emphasis on conversation abilities.
Learning Lab (LLB)

Legal Education (LEX)

Logistics Management (LOG)

Machining (MAC)

MAC 7000. Introduction to Metrology. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the care and use of precision instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 7001. Overview of Metrology. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the care and use of precision instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

MAC 7140. Computer Numerical Control Graphics Programming/ Turning. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Computer Numerical Control Graphics Programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system.

MAC 7141. Computer Numerical Control Graphics Programming/ Milling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces Computer Numerical Control Graphics Programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information to the CNC milling center.

MAC 7151. Basic Shop Math. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces basic calculations as they relate to machining operations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

MAC 7152. Manual Lathe Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to manual lathe operations as it relates to the metalworking industry.

MAC 7153. Manual Mill Operations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces students to manual mill operations as it relates to the metalworking industry.

MAC 7154. Basic Shop Math. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as a review of technology terms and principles for industrial applications.

MAC 8111. Machining Technology 1. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces machining operations as they relate to the metal working industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, bench grinders and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing and turning.

MAC 8121. Introduction to Computer Numerical Control. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

Maintenance (MNT)

Management, Leadership, Supervision (MLS)
**Marketing and Retailing (MKT)**

**Masonry (MAS)**

**MAS 7001. Introduction to Bricklaying. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

A course covering the fundamental techniques and practice in the building of brick walls, steps, corners, chimneys, and other brick structures. Emphasis is placed on the correct use of the mason’s trowel, level, plumb line and tape measure. Job safety and safe work habits will be covered.

**MAS 7002. Advanced Brick Masonry. 0.0 Hours.** Class-384.0. Clinical-0.0. Lab-0.0. Work-0.0

A course covering the advanced techniques, methods, procedures, and practice in laying brick and block walls along with steps, corners, chimneys and other brick structures. The students will be taught the correct use of materials, equipment and tools along with extensive practice in laying brick and block.

Prerequisites: Take MAS 7001 with a minimum grade of S

**Mathematics (MAT)**

**MAT 7010. Review of Data Analysis Tools. 0.0 Hours.** Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0

This training is designed to give participants a review of basics such as simple calculations and rounding in preparation for specific instruction in percentages to allow them to calculate percent discounts, increases, decreases and sales margins.

**MAT 7060. Intensive Review of Arithmetic and Pre-Algebra. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Fast Track 7060 is a fast-paced, intensive review course that covers arithmetic and pre-algebra in a standard instructor/student format. There are no pre-requisites for this course; however, students should have a history of being successful in equivalent levels of math, although they may not recall enough information to do well on the placement test. After successful completion of the class, which includes a graded test, the student will be given prerequisite permission for MAT 060 or MAT 070 unless granted permission in advance, students are required to take a curriculum math course in the semester immediately following the fast-track class.

Prerequisites: Take MAT 060

**MAT 7070. Intensive Review of Introductory Algebra. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Fast Track 7070 is a fast-paced, intensive review course that covers introductory algebra in a standard instructor/student format. To be eligible for the course, a CPT arithmetic score of 55 or completion of MAT 060 with a “C” or better is required. Students should have a history of being successful in equivalent levels of math, although they may not recall enough information to do well on the placement test. After successful completion of the class, which includes a graded test, the student will be given pre-requisite permission for MAT 080 or MAT 140 or MAT 115 unless granted permission in advance, students are required to take a curriculum math course in the semester immediately following the fast-track class.

Prerequisites: Take MAT 060

**MAT 7080. Intensive Review of Intermediate Algebra. 0.0 Hours.** Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Fast Track 7080 is a fast-paced, intensive review course that covers intermediate algebra in a standard instructor/student format. To be eligible for the course, a CPT arithmetic score of 55 and elementary algebra score of 55 or completion of MAT 070 with a “C” or better is required. Students should have a history of being successful in equivalent levels of math, although they may not recall enough information to do well on the placement test. After successful completion of the class, which includes a graded test, the student will be given prerequisite permission for MAT 161 or MAT 171 or MAT 155. Unless granted permission in advance, students are required to take a curriculum math course in the semester immediately following the fast-track class.

Prerequisites: Take MAT 060 MAT 070

**Mechanical (MEC)**

**MEC 7003. CNC Operator Training I. 0.0 Hours.** Class-28.0. Clinical-0.0. Lab-0.0. Work-0.0

**MEC 7111. Machine Shop Practices. 0.0 Hours.** Class-35.0. Clinical-0.0. Lab-0.0. Work-0.0

This course will include the following: introduction to machine tools (drill press, lathe, milling machine, shaper, grinders, etc.), care and use of basic hand tool and measuring instruments, elementary layout and processes on lathe, drill press, and off-hand grinding of tools. Safety glasses are required.

**MEC 7200. CNC Programming in the Workplace. 0.0 Hours.** Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

APICS-The Educational Society for Resource Management is a not-for-profit international educational organization known for its education and professional certification programs. Though Corporate and Continuing Education, CPCC offers CPIM preparation courses to prepare individuals for certification and to help organizations improve workplace performance.

**MEC 7210. Introduction to CNC Control. 0.0 Hours.** Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

This course provides a basic introduction to the operation of specific CNC equipment within the workplace. Included is an introduction to writing and loading computer code into a particular piece of equipment to produce the machining results desired.

**Mechanics and Maintenance (MEM)**

**MEM 8750. Tablesaw and Radial Arm Saw Basics. 0.0 Hours.** Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

Familiarization of machine operation and safety considerations for using power tools. Discussion and recognition of joinery options available.

**MEM 8751. Stock Preparation: Gluing Clamping & Joinery. 0.0 Hours.** Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

This class begins with an introduction to the varieties of wood available for purchase and the characteristics of rough cut lumber. Instruction will be given on he dimensioning process to include demonstrations of the joiner and planer and a brief overview of how the table saw and miter saw relate to the dimensioning of rough cut lumber. A biscuit cutting demo will follow with tips on clamp ing and joining dimensional lumber.
MEM 8752. Sanding and Finishing. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
A Discussion of Sanding and Sandpaper, Hand Plane/Scrapers to prepare surfaces for finishing. Also covered will be different types of finishes and applications. The instructor will show examples of good and bad finishes.

MEM 8755. Dovetail by Hand. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
A discussion of dovetailing techniques used for dovetails.

MEM 8770. Beginning Woodworking Combination. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This class includes Radial Arm and Table Saw basics, stock preparation, gluing and clamping, sanding and finishing, and five class meetings to build a project.

MEM 8772. Intermediate Woodworking Combination. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
Build a project of your choice which includes a drawer(s) using your newly developed skills. Includes extensive router application.

MEM 8773. One Special Christmas. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0
A Community Service class in which volunteers build woodworking projects which are auctioned off. The proceeds are used to purchase toys for the underprivileged.

MEM 8799. Log Cabin Home Construction. 0.0 Hours. Class-33.0. Clinical-0.0. Lab-0.0. Work-0.0
The students will build a replica of an 18th century log structure using traditional tools and materials.

Medical Assisting (MED)

Medical Laboratory (MLA)

MLA 7000. Phlebotomy Training. 0.0 Hours. Class-168.0. Clinical-0.0. Lab-0.0. Work-0.0
Includes classroom and clinical laboratory practices to allow students to perform venipunctures and other phlebotomy procedures, collect routine lab samples and learn about lab tests, collection techniques and patient characteristics.

MLA 7001. Phlebotomy Training Experience. 0.0 Hours. Class-200.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares the participant in the knowledge and skills to become a certified phlebotomist, a medical professional who collects blood from patients for various laboratory tests and procedures. The course consists of both a seven week classroom phase and, with successful completion, a seven week clinical experience. Students who complete both phases successfully are eligible to seek national certification. Phlebotomy training and certification enables individuals to seek employment in hospital labs, physician practices, and private independent laboratories with full time or part time employment.

MLA 8001. Phlebotomy Training. 0.0 Hours. Class-176.0. Clinical-0.0. Lab-0.0. Work-0.0
This course prepares the participant in the knowledge and skills to become a certified phlebotomist, a medical professional who collects blood from patients for various laboratory tests and procedures. The course consists of both a seven week classroom phase and, with successful completion, a seven week clinical experience. Students who complete both phases successfully are eligible to seek national certification. Phlebotomy training and certification enables individuals to seek employment in hospital labs, physician practices, and private independent laboratories with full time or part time employment.

Medical Sonography (SON)

Mental Health (MHT)

Military Science (MSI)

MSI 8100. Motorsports MIG/TIG Welding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn both MIG (gas metal arc) and TIG (gas tungsten arc) welding techniques used by professionals in the motorsports workplace. Students will use actual components used in race car construction utilizing both aluminum and steel.

MSI 8102. Mig/Tig Welding for the Motorsport Enthusiast. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn both MIG (gas metal arc) and TIG (gas tungsten arc) welding techniques used by professionals in the Motorsport workplace. Topics include: safety, set-up, proper use of equipment, and standard repairs.

MSI 8103. Finish Fabrication. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the art of metal fabrication, basic bracketry, panel development, mounting procedures and component construction used in today’s motorsports industry.

MSI 8106. Motorsports Heavy Fabrication. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn the process of tube bending, tube notching and construction skills pertaining to chassis construction. A continuation of welding skills for both aluminum and steel will be learned.

MSI 8109. Motorsports Assembly. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn the process of chassis and component assembly. Car set-up as well as electrical, drivetrain and plumbing will be taught using NASCAR type vehicles.

MSI 8112. Motorsport Body Hanging. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn the technique of hanging sheet metal on racing applications. Students will also receive an introduction to complex panel placement and safety procedures.

MSI 8115. Motorsport Paint, Body and Decaling. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will be introduced to the process of prepping and painting race-related vehicles. Students will learn both conventional and electrostatic paint applications. Students will also be introduced to body wrap and graphic applications.
ride safely, riders need to know their bikes as well as the rules of the road. Motorcycles. Bring your owner's manual (optional) and pen and paper. To reference; however the instructors cannot perform any service on student motorcycles. Students are encouraged to bring their own motorcycles for visual inspection and troubleshooting, on-the-road repairs and more will be discussed. Students should have acquired the basic skills to fabricate, form, and fit various metal components.

MSI 8200. Race Car MIG Welding. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course introduces safety, proper setup, and operation of gas metal arc welding process, also known as MIG welding. Topics include safety, equipment setup and minor repair, and operation of MIG welding equipment. Upon completion, students should be able to make industry-acceptable welds on flat plate, round, and box tubing made of mild carbon steel.

Miscellaneous (MIC)

MIC 8000. Basic Motorcycle Maintenance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Get your motor running and save some money with this course designed for new riders or anyone interested in basic motorcycle maintenance. Learn how to properly change oil and other essential fluids. Pre-ride inspections are a must to insure a safe riding experience. Learn to customize the controls on your own bike. Winterization, basic troubleshooting, on-the-road repairs and more will be discussed. Students are encouraged to bring their own motorcycles for visual inspection and reference; however the instructors cannot perform any service on student motorcycles. Bring your own owner's manual (optional) and pen and paper. To ride safely, riders need to know their bikes as well as the rules of the road.

MIC 8750. Motorcycle Basic Rider Course - Dealer Experience. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn to ride at BMW-Ducati-Triumph Motorcycles of Charlotte. In addition to basic motorcycle safety instruction this course includes tours of the facility, inspection of a variety of motorcycles, demonstration of safety equipment, and a lower student-teacher ratio. This introductory course consists of class work and riding exercises on motorcycles that are provided to the student. Upon satisfactory completion of this course you will receive a waiver for the skills portion of the N.C. DMV license test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, they will need to re-register at their own expense.

MIC 8755. Weekday Motorcycle: Basic Rider Course - Dealer Experience. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn to ride at BMW-Ducati-Triumph Motorcycles of Charlotte on weekdays. In addition to basic motorcycle safety instruction this course includes tours of the facility, inspection of a variety of motorcycles, demonstration of safety equipment, and a lower student-teacher ratio. Also, you can take advantage of special student discounts. This introductory course consists of class work and riding exercises on motorcycles that are provided to the student. Upon satisfactory completion of this course you will receive a waiver for the skills portion of the N.C. DMV license test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, they will need to re-register at their own expense.

MIC 8780. Motorcycle: Basic Rider Course. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This weekend course is specifically designed for those with no motorcycle riding experience, yet advanced enough to increase knowledge and riding skills of experienced riders. The course consists of class work and riding exercises on motorcycles provided by the College. Upon satisfactory completion of this course you will receive a waiver for the skills portion of the N.C. DMV License Test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, they will need to re-register at their own expense.

MIC 8784. Motorcycle: Basic Rider Course for Women. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
Ready to go solo? Join this section designed just for women who want to learn to ride. The course is specifically designed for those with no motorcycle riding experience; however, the student should have the balancing ability to ride a bicycle prior to class. The course consists of class work and riding exercises on motorcycles provided by the College. Upon satisfactory completion, you will receive a waiver for the skills portion of the N.C. DMV License Test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, she will need to re-register at her own expense.
MIC 8785. Weekday Motorcycle: Basic Rider Course. 0.0 Hours.
Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This weekday course is specifically designed for those with no motorcycle riding experience, yet advanced enough to increase knowledge and riding skills of experienced riders. Course consists of class work and riding exercises on motorcycles provided by the College. Upon satisfactory completion of this course you will receive a waiver for the skills portion of the N.C. DMV license test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, he or she will need to re-register at their own expense.

MIC 8795. Motorcycle: Experienced Rider Course Prep Course. 0.0 Hours.
Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Experienced Rider/License Waiver Preparation Course is designed for motorcycle riders who are already licensed or have a NC permit and wish to obtain full NC licensure. This one day course covers street riding strategies and reinforces important information about traction, cornering and counter-steering. Students must provide a safe, street-ready two wheeled motorcycle. Riders must provide proof of insurance in class. Students looking to obtain a waiver for the skills portion of the NC DMV license test must pass a written and riding skills test. Must be at least 16 years old. If for any reason a student cannot successfully complete this class, he or she will need to re-register at their own expense.

New Industry Training (NIT)

NIT 7004. Rental/Property Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7005. Charlie Training. 0.0 Hours. Class-5.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7006. Suit Handling. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7007. Med Management I. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7008. State Specific Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7009. C.H.A.R.L.I.E. Training II. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7010. Cmm Workshop on the Repeatable Level. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7011. Cmm Train-The-Trainer. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7012. Word 97/WINDOW Nt. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7013. Leadership Training. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7014. Corporate Orientation. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7015. Nc Licensing. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7016. Settlement Training. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7017. Colossus Training. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7018. Opening Practices. 0.0 Hours. Class-1.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7019. Quality Service Skills. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7020. Iat Training. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7021. Bei Training. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7022. Pdl Seminar. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7023. Negotiations. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7024. Charlie Prop. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7025. Slu Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7026. Property Claims Handling. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7027. Loss Assignment Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7028. Outlook 97. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7029. Colossus Refresher Training. 0.0 Hours. Class-2.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7030. Charlie: Work a Loss. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7031. Homeowners Personal Prop/Subro. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7032. Communication Skills. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7033. Welding Training. 0.0 Hours. Class-500.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7034. Forklift Training. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7035. 5-S Training. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7036. Safety Committee. 0.0 Hours. Class-1.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7037. Picking & Shipping Operations Training. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7038. Receiving Operations Training. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7039. Train-The-Trainer. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7040. General Ledger I. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7041. General Ledger II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7042. Purchasing Buyer I. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7043. Purchasing Buyer II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7044. Accounts Payble I. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7045. Accounts Payable II. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7046. Fixed Assets. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7047. Accounts Receivable. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7048. Achieving Exceptional Customer Relations. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7049. Account Services/Activations/Customer Assist I. 0.0 Hours. Class-362.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7050. Account Services/Activations/Customer Assist II. 0.0 Hours. Class-282.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7051. Account Services. 0.0 Hours. Class-187.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7052. The Team Advantage. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7053. Raising Difficult Issues. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7054. Solving Quality Problems. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7055. Participating in Group Meetings/Playing A Vital Role in Decisions. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7056. Real Time Adherence. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7057. Witness. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7058. Witness, Winset, Service Quality Training. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7059. Velocity. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7060. Director Applications. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7061. Aecr. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7062. Account Services & Aecr. 0.0 Hours. Class-187.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7063. Account Spending Limits. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7064. Customer Assistance. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7065. Pre-Employment. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7066. Job Process-Inbound. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7067. Job Process-Outbound. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7068. Check by Phone. 0.0 Hours. Class-0.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7069. R Drive Reporting. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7070. Notetaking. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7071. Support Services. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7072. Northwest Airlines Affinity Awards Program & Asl Evaluation. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7073. Account Spending Limits/Nw Affinity. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7074. Asl Refresher. 0.0 Hours. Class-1.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7075. Correspondence Management. 0.0 Hours. Class-5.7. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7076. Neopoint. 0.0 Hours. Class-0.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7077. Wireless Web. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7078. Customer Assistance II. 0.0 Hours. Class-168.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7079. Outlook 98. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7080. Train-The-Trainer Pre-Hang. 0.0 Hours. Class-2.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7081. Pre-Employment. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7082. New Hire - Orientation. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7083. Pre-Hang Technical Training. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7084. Operator Training. 0.0 Hours. Class-45.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7085. MacHining Techniques. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7086. Blueprint Reading/Measuring Basics. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7087. MacHining Techniques II. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7088. Personnel Practices for Supervisors. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7089. Basic Electricity. 0.0 Hours. Class-60.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7090. First Aid in the Workplace. 0.0 Hours. Class-22.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7091. Customer Service Training. 0.0 Hours. Class-120.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7092. Technical Intro to Mq Series. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7093. Mq Series Application Programming. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7094. Practicing Object-Oriented Analysis & Design. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7095. Java Programming. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7096. Object-Oriented Programming With Java. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7097. Visual Age for Java. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7098. Intro to C As a Foundation for C++ on Win Nt. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7099. Developing Oo Application W/Java: the Full Life Cycle. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7100. Software Test: Unit Through System & Acceptance. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7101. Essentials of Java for E-Business. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7102. Ibm Websphere Application Server Development & Studio. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7103. Introduction to C Programming. 0.0 Hours. Class-36.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7104. Leadership 2000. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7105. Advanced Access. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7106. Introduction to Access. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7107. Orientation. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7108. Orientation. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7109. Insurance Licensing P & L Training. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7110. Kwikset Printers. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7111. Cylinder Assembly. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7112. Acc On-The-Job Training. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7125. Effective Writing. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7134. On the Job Training. 0.0 Hours. Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach several modules. These modules will instruct in areas of environmental, health, safety & security and interpersonal skills.
NIT 7158. Client Insurance Prof P&I Training. 0.0 Hours. Class-225.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7400. On the Job Training - All Units. 0.0 Hours. Class-240.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7415. New Employee Orientation. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach three modules. The modules included within new employee orientation is introduction to drawing and metrology, forklift training, and interpersonal skills.
NIT 7646. Soldering Rework. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7713. Advanced Wordperfect 6.1. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7731. Intro to Access. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7744. Introduction to Windows. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7771. Orientation. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7794. On the Job Training. 0.0 Hours. Class-66.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7815. Introduction to Microsoft Windows 3.1. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7869. Employee Orientation. 0.0 Hours. Class-0.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7882. New Employee Orientation. 0.0 Hours. Class-63.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7895. On-The-Job Training. 0.0 Hours. Class-21.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7897. Pre-Employment Assessment. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7931. Customer Service Training. 0.0 Hours. Class-120.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7937. Ms Word 6.0 Level I for Win. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7959. Effective Interviewing. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7961. Lotus Level I. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7967. Lotus Level II. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7970. Advanced Lotus. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7979. Intro to Excell. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7987. Power Point 97. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7989. Intermediate Excel. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7994. Advanced Excel. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 7995. Intermediate Microsoft Word. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8007. Focus. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8008. Introduction to Ms Project Manager. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8011. Access for Windows 2.0 Level I. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8014. Access 2.0 Level II for Windows. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8015. Machine Shop Technology. 0.0 Hours. Class-150.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8017. Guardian Training. 0.0 Hours. Class-4.5. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8018. Business and Social Dynamics. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides the newly hired business associate at Transamerica the background and knowledge of appropriate business etiquette.

NIT 8019. Tax Update. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8020. Client-Server Development. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8021. Work Request System. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8022. Wordperfect 6.1 Level I. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8023. Wordperfect 6.1 Level II. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8025. Beginning Spanish. 0.0 Hours. Class-108.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8026. Microsoft Exchange. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8027. Harvard Graphics. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8028. Situational Leadership. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8029. It Consulting Skills. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8030. New Performance Review. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8031. Setup & Maintenance of Fecken Kirfel Peelers. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8032. Coaching the Lift Truck Operator. 0.0 Hours. Class-2.5. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8033. Fire Emergency Response Team. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8034. Qs 9000 Overview. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8035. Qs 9000 Standard Operating Procedures. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8036. Continuous Improvement. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8040. Intro to Word 97. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8041. You Can't Exceed Without Communication. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8042. Everyone Is a Customer. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8043. Business Presentation Skills. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8044. Moop. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8045. Photoshop. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8047. Frontline Leadership. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8048. Engraving Ops. Training. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8049. Ims Orientation I. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8050. Ims Orientation II. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8051. Operations. 0.0 Hours. Class-98.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8052. Magic Customer Service. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8053. Compliance. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8054. Product Training. 0.0 Hours. Class-7.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8055. Faxserve Training. 0.0 Hours. Class-2.5. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8056. Variable Annuity. 0.0 Hours. Class-54.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8057. Withdrawal Processing. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8058. Suspense Training. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8059. Taxes. 0.0 Hours. Class-1.2. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8060. Telephone Training. 0.0 Hours. Class-1.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8061. Orientation I. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8062. Orientation II. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8063. Twss Training. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8064. End to End. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8065. Individual Transaction Processing. 0.0 Hours. Class-385.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8066. Client Services New Hire. 0.0 Hours. Class-224.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8067. Investor Information New Hire. 0.0 Hours. Class-225.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8068. Participant Services New Hire. 0.0 Hours. Class-256.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8069. Ira Processing. 0.0 Hours. Class-64.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8070. Ira Monetary New Accounts. 0.0 Hours. Class-64.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8071. Introduction to Insurance. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8072. Orientation III. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0

NIT 8073. Orientation IV. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8074. Orientation V. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8075. Orientation Vi. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8076. Call Center Team Manager Training. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8077. Machine Maintenance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
NIT 8100. Introduction to Personal Computers: Using Windows XP. 0.0 Hours.
By using a personal computer, the student can accomplish many tasks that might be more difficult and time-consuming to accomplish on their own. Some of those tasks might include writing a letter, analyzing numeric information, or maintaining an updated list of client information; however, before using a personal computer, the student will need to understand what it is and how it works.

Nuclear Maintenance (NUC)
NUC 7000. Nuclear Quality Assurance Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Nuclear Quality Assurance Training will familiarize participants with U.S. nuclear power plant assurance requirements for working in the industry as well as how to develop and implement a nuclear quality assurance program for their own company.
NUC 7001. Nuclear Internal/External Auditor Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Nuclear Internal/external Auditor Training will provide an overview of industrial codes and standards as well as insights into nuclear power plant and research facility regulation.
NUC 7002. Commercial Grade Item Dedication (CGID). 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The Commercial Grade Item Dedication (CGID) training will provide instruction on why such dedications are performed and how engineers actually perform dedications.

Nursing (NUR)
OSHA, EPA, HAZMAT & Other Gov (OSH)
OSHA 7004. CFC Certification for HVACR Tech. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Course provides a review and North Carolina state examination to become certified in refrigerant recycling for air conditioning and refrigeration technicians who work on fixed equipment containing CFC-based refrigerants. Requires knowledge of heating, ventilation, air conditioning, and refrigeration. State exams must be ordered 3 weeks prior to class. Register as soon as possible.
OSHA 7014. Hazwoper-40 Hr.Emergency Response Hazardous Materials Incidents. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide guidance for compliance with RCRA, CERCLA and OSHA regs. that affect design and implementation of site operation, safety and contingency plans and training. in this course. Hands on practice and demonstrations with safety monitoring devices and protective equipment are used.
OSHA 7015. 24-HR. HazWOPER. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide attendees with the requirements of 29 Code of Federal Regulations (CFR) 1910.120, the Occupational Safety and Health (OSHA) rule for Hazardous Waste Operations and Emergency Response (HazWOPER). This course will be directed to participants with responsibility for spill response at industrial facilities. Included will be a mock spill response drill.
OSHA 7016. 8-HR. HazWOPER Refresher. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
Course will meet the annual refresher training in the OSHA CFR 1910.120 Hazardous Waste Operations and Emergency Response Standard. Includes recognition and control of site waste hazards, control and monitoring of hazardous substances, proper labeling, disposal, and emergency safety plans.
OSHA 7024. Department of Transportation - Overview. 0.0 Hours. Class-3.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as an overview of the department of transportation rules and regulations for fleet safety compliance.
OSHA 7050. Worksite Safety. 0.0 Hours. Class-1.5. Clinical-0.0. Lab-0.0. Work-0.0
This workshop will involve assessment strategies for worksite safety and written safety and health policies. Accident potential, most frequently cited violations and prevention are also discussed.
OSHA 7051. Electrical Safe Work Practices. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide training under the electrical safe work practice act of osha 1910. 303-308.
OSHA 7063. Safety and Health Management Certification. 0.0 Hours. Class-80.0. Clinical-0.0. Lab-0.0. Work-0.0
Consists of fundamentals necessary to practice as safety specialist in a business, manufacturing or technology setting.
OSHA 7067. Environmental Regulations Safety/Health & Health Professional. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Gives in depth overview of environmental regulations. These regulations include hazardous waste management, emergency preparedness, emission inventions, air permitting, wastewater treatment, environment sampling, spill prevention and control and risk management plans.
OSHA 7070. Introduction to Workers Compensation. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide instruction in the areas of workers compensation, accident prevention, claims handling, and medical management.
OSHA 7071. Introduction to DOT Regulations. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
Provides training on DOT regulations and covers shipping and labeling requirements for hazardous material.
OSH 7072. Comprehensive Review for Industrial Hygiene Professionals. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Designed for individuals who are preparing for the ABH certification (both core and comprehensive examinations).

OSH 7073. Comprehensive Exam Review Assoc. & Certified Safety Professionals. 0.0 Hours. Class-40.0. Clinical-0.0. Lab-0.0. Work-0.0
Prepares individuals who are planning to take the ASP and CSP examinations administered by the Board of Certified Safety Professionals (BCSP).

OSH 7074. 12 Hour Construction Safety and Health. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to familiarize students with core basics in construction safety/Health as required by osha’s 1926 standard.

OSH 7076. Electrical Safety and Hazardous Energy Control (LO/TO). 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Course is designed for practical training of supervisors, maintenance staff, safety team members and internal auditors in the latest Hazardous energy Control (formerly known as Lock out/tag out) standards for both Authorized and Affected Employees. Learn how to prepare for shutdown through release, the use of tags alone, group lock out/tag out, and training requirements.

OSH 7077. Ergonomics. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Includes review of OSHA ergonomic standards and guidelines, American National Standards Institute National ConConsensus standards, and NIOCH lifting guidelines. Focus will be on developing and implementing a complete ergonomics program using job task analysis, identification of risk factors, ergonomic checklists, and medical surveillance, and ergonomic awareness training.

OSH 7078. Official Osha Intro. to Gen. Industry Safety Training. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
Introduction to OSHA inspection procedures and overview of OSHA standards for General Industry. This is an official OSHA class.

OSH 7079. Official Osha Comp. Safety Training /GI General Industry. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0
In-depth look at OSHA inspection procedures and OSHA safety and health standards for General Industry. This is an official OSHA class.

OSH 7091. OSHA Recordkeeping. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Employees are required to comply with new forms to document workplace injuries and illnesses. This course will prepare your safety managers and instructors to confidently present this new regulatory requirement. Topics include use of the regulation, filling out the OSHA300 Log and 300A summary, calculating incident rates, and posting, training and communications requirements and the OSHA 301 Report.

OSH 7100. OSHA 10-hr. General Industry Outreach. 0.0 Hours. Class-11.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers fundamentals for safety managers and supervisors or anyone with responsibilities for safety compliance in the workplace. It is designed to introduce participants from all types of industries to the provisions of the Occupational Safety and Health Act (OSHA). Learn detailed information on implementing OSHA in North Carolina, including how to identify common violations of OSHA standards, proper identification of permit-required confined spaces, and how to ensure proper safety plans are in place. Participants successfully completing the course, which includes a final examination, will receive an OSHA 10 hour General Industry card from the US Dept. of Labor, Occupational Safety and Health Administration as well as a certificate of completion from CPCC for 1.1 Continuing Education Units.

OSH 7101. Confined Space Entry Training. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4 hour class explains what a confined space is, confined space hazards, and preparing to enter.

OSH 7102. Lock Out/Tag Out. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers proper procedure for locking equipment for various reasons such as for repairs or if otherwise unmanned, and procedure for tagging locked equipment with one person responsible for unlocking. Lock out and tag out are to prevent injury occurring to any person coming in contact with disabled equipment.

OSH 7103. Safety Awareness/General Industry. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides information on basic OSHA safety guidelines.

OSH 7104. Receiving Hazardous Materials. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers safety guidelines and procedures for receiving and handling hazardous materials, detecting exposure, handling emergencies, employees’ and employer’s responsibilities. This course serves as a refresher for the 8 hour Receiving Hazmat Course.

OSH 7171. Managing a Safety Program Safety in the Workplace. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed for the training of safety program managers and safety team members. This course includes an overview of safety program management to include management leadership and employee participation, OSHA regulatory issues, elements of a written safety program, compliance checklists, and the formation of safety committees.

OSH 7200. OSHA 30-hr. General Industry Outreach. 0.0 Hours. Class-32.0. Clinical-0.0. Lab-0.0. Work-0.0
This 30 hour comprehensive course is ideal for anyone with safety and health responsibilities or employee safety and health awareness. This course covers all required topics in the 10 hour General Industry course plus additional OSHA approved topics. Participants successfully completing the course which includes a final examination will receive an OSHA 30 hour General Industry card from the US Dept. of Labor, Occupational Safety and Health Administration as well as a certificate of completion from CPCC for 3.2 Continuing Education Units.

OSH 7201. Using OSHA eTools in a Safe Work Environment. 0.0 Hours. Class-3.5. Clinical-0.0. Lab-0.0. Work-0.0
Newly developed course will engage participants in a hands-on session to learn to use the Internet and OSHA eTools. Tools are available as downloadable files to help you and your company with safety compliance. Interactive web-based tools illustrate and use menus to help teach and answer questions on workplace safety and how the standards apply to work site. On-line learning segment and links included.
OSH 7210. Fall Protection Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to teach the first step in a proactive approach to fall protection involving identifying the potential fall hazards in the workplace.

OSH 7250. Powered Industrial Truck (Forklift) Driver Training. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8 hour class covers the safety requirements for the forklift type the students use at work.

OSH 7251. Forklift Driver - Train the Trainer. 0.0 Hours. Class-6.0. Clinical-0.0. Lab-0.0. Work-0.0
This 6 hour class trains students to enable them to train co-workers on the safety requirements for the forklift type the students use at work.

OSH 7255. Forklift Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operators shall receive initial training in the following topics: Hyster stand-up model forklift. Workplace related topics. Requirements of the standards.

OSH 7256. Forklift and Fall Protection Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Operators shall receive initial training for forklift operations and safety. Students will the first step in a proactive approach to fall protection involving identifying the potential fall hazards in the workplace.

OSH 7300. Forklift Operator Certification. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 8 hour class instructs warehouse personnel on the fundamentals and safe operations of various types of industrial forklifts. The class is broken into two sections: Sit-down Lifts and Warehouse Lifts. Upon completion of this class, students will become certified Forklift Operators.

OSH 7501. OSHA Class II Asbestos Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This 4-hour class provides an overview of OSHA Class II Asbestos training in the area of rotor blocking removal process for Siemens Energy-Charlotte.

OSH 7505. Overhead Crane. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This popular course covers a wide variety of crane configurations. Participants receive a working knowledge of all pertinent regulatory agency requirements.

OSH 7506. Overhead Cane Awareness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The course includes a power point presentation and crane safety videos on the practicality of overhead crane safety.

OSH 7507. Industrial Radiography/Radiation Safety. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an entry level course that will teach the basic operation of industrial radiography devices and radiation safety.

OSH 8001. 12 Hour Basic Construction Safety and Health. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed to familiarize students with core basics in construction safety and health as required by osha’s 1926 standard.

OSH 8002. Reflex Sympathetic Dystrophy of the Upper Extremity. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This class is designed to provide occupational health nurses with an overview of the condition of reflex sympathetic dystrophy of the upper extremity. Upon completion of this course the nurse will be able to identify signs and symptoms of reflex sympathetic dystrophy of the upper extremity and be familiar with definitive diagnosis and treatment of this condition.

OSH 8003. Domestic Violence Recognition & Referral For Ohn. 0.0 Hours. Class-2.5. Clinical-0.0. Lab-0.0. Work-0.0
A workshop designed to help health care workers identify victims of domestic violence, become knowledgeable of community resources, and increase their ability to intervene appropriately.

OSH 8004. Hepatitis & Lyme Disease Prevention & Precautions. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide a brief overview of hepatitis a, hepatitis b, and lymes disease. the focus will be characteristics of the disease, precautions, and vaccinations.

OSH 8005. Dilemma of the Injured Elderly Worker. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
When presented with an elderly injured employee the ohn needs to be familiar with age related findings with regard to all body systems. This course will provide participants with a review of age related findings of major body systems.

OSH 8006. Sexual Savvy: Cronic Illness and Sexuality. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides a brief overview of the causes of sexual dysfunction, diagnosis and treatment. Contributing factors such as aging, diabetes, cardio-vascular disease, copd, djd, chronic fatigue syndrome and ibs will be examined. Treatment options will be discussed. Discussion of patient teaching needs and counseling techniques is included.

OSH 8007. Overview of Neuropsychological Assessment. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Course includes a review of brain structures and the relationship of structure and function. Focus of the class is on behavioral neurology and the components of an adequate neuropsychological assessment.

OSH 8008. No. American Technician Excellence Exam Review for Hvacr. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
The NATE Review is a study course designed by the Refrigeration Service Engineers Society to prepare HVAC installation and service professionals the the North American Technician Excellence exam. The course reviews the RSES study guide. Core and specialty exams are offered at the end of the course.

OSH 8009. Occupational Medicine. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This brief course provides an overview of occupational medicine in an industrial setting. Highlights include a plant walk-Through assessing safety and health risks, fitting the job to the worker, modifying duties when necessary, and non-Invasive treatments.

OSH 8010. Hiv/Aids in the New Millenium. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
The focus of this workshop is to provide an update on the current understanding of hiv/aids and the latest developments in hiv/aids treatments, care and trends. Special focus will be given to new treatments, therapies and the effectiveness in the hiv client. Using didactic lectures, group discussion, and overhead presentations, the participants will explore the new approach in caring and treating persons living with hiv.
OSH 8011. Charlotte Regional Safety and Health School. 0.0 Hours.
Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
The Charlotte Regional Safety School consists of two days of workshops designed to provide continuing education for safety and health professionals. Examples of topics include: role of occupational rehabilitation, natural and propane gas safety, and lockout/Tagout.

OSH 8012. First Aid for the Eye. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course includes basic eye anatomy and physiology, common eye injuries and treatment.

OSH 8013. Occupational Dermatosis. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
Skin diseases are among the most prevalent of occupational illnesses. The most common are contact dermatoses, followed closely by physical and mechanical irritants. The substances that are potent skin sensitizers pose the greatest threat. The occupational health care provider must be aware of the anatomy and physiology of the skin in order to make a definitive diagnosis. The workplace exposure must be reviewed and this often requires a thorough facility walk-thru. Finally, taking an occupational history and asking about recreational habits is very important as it is in other occupational illnesses.

OSH 8014. Infectious Disease Awareness. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed as an overview of common communicable diseases, signs and symptoms, populations at risk and infections processes. Discussion will include exposures, response to exposures, treatments and personal protection.

OSH 8015. Basics of Chronic Pain Management. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course deals with the basics of pain and its management. Topics include definition and types of pain, barriers to adequate relief, treatment guidelines, drug administration systems, patient selection, efficacy and cost effectiveness.

OSH 8016. Problem Solving in Healthcare. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This experiential session focuses on a small group activity that highlights the complexity of problem solving in a group setting when there is significant data to interpret. Additionally, the group will have an opportunity to process how to solve problems effectively and build consensus within a team.

OSH 8017. Mediation Intervention with ADA Barriers With Accommodation. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is designed to help participants learn how to avoid claims of disability discrimination under the Americans with Disabilities Act, and to successfully negotiate the interactive process with an employee to determine an appropriate reasonable accommodation.

OSH 8018. Ergonomic Controls for Onh. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course provides the basics of ergonomic control for occupational health nurses from a chiropractic standpoint. Included are industry concerns, return to work problems, and pain management.

OSH 8019. Back Pain in the Workplace. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to familiarize participants with the causes, symptoms and treatment of back pain in the workplace.

OSH 8020. A View from the Bench: Workers’ Compensation Mock Trail. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to help participants learn how to avoid claims of disability discrimination under the Americans with Disabilities Act, and to successfully negotiate the interactive process with an employee to determine an appropriate reasonable accommodation.

OSH 8021. The Final OSHA Rule on Hearing Loss Recordability. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
The final rule on OSHA hearing loss recordability is reviewed including major differences from previous standards, how the change will affect the industry, recent interpretations, how to calculate a standard threshold shift, and when to record hearing loss on the OSHA 300 log.

OSH 8022. Business Writing. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This presentation will update occupational health nurses on advances in occupational medicine and in disease screening and prevention. Cardiovascular Disease, cancer screening, and other screening measures will be discussed. Health risk appraisals and physical examination approaches will be reviewed.

OSH 8023. Occupational Medicine Advances in Disease Screening & Prevention. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is designed to help the Mncaohn explore ways of promoting and increasing membership in its organization.

OSH 8024. Increase Membership in Mncaohn. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is designed to help participants learn about the factors that influence the development or decline of neighborhoods.

OSH 8025. Occupational Health Nurse Workshops. 0.0 Hours. Class-2.0. Clinical-0.0. Lab-0.0. Work-0.0

Office Science Education (OSC)

OSC 7017. Punctuation and Grammar. 0.0 Hours. Class-9.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help students examine purpose, organization, sentence structure, and word choice to improve business writing.

OSC 7018. Business Writing. 0.0 Hours. Class-15.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will help students examine purpose, organization, sentence structure, and word choice to improve business writing.

OSC 7020. Proofamatics. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0
Proofamatics is a course designed to increase the accuracy of written communication through improved proofreading skills by providing multiple exercises from which participants learn a variety of crucial skills. Proofamatics delivers improvement in finding errors. As a result, organizations, as well as individuals, benefit from increased productivity and reduced costs of errors.

OSC 7021. Good Neighbor Relations. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
designed to help new residents learn about the factors that influence the development or decline of neighborhoods.

OSC 7022. Business Writing Tips Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This workshop is a 2 hour review of basic skills for business writing.
Opticianry (OPT)

Pharmacy (PHM)

Photography (PHO)

Physical Fitness Technology (PSF)

Physical Therapy (PTH)

Plumbing (PLU)

PLU 7000. Commercial/Residential Plumbing Level I, Part I. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

PLU 7001. Commercial/Residential Plumbing Level I, Part II. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

Prerequisites:
• Take PLU 7000 with a minimum grade of S

PLU 7006. Plumbing 1-2-3. 0.0 Hours. Class-44.0. Clinical-0.0. Lab-0.0. Work-0.0

Put the yellow pages away; let us teach you how to tackle your own plumbing projects. This class will lead you through the basic plumbing methods, including the tools and materials used to install plumbing pipe work and plumbing fixtures. Primary emphasis will be placed on plumbing systems for residential homes.

PLU 7010. Residential/Commercial Plumbing Core. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level I - Level IV training required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: Courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

PLU 7013. Plumbing Codes and Law. 0.0 Hours. Class-48.0. Clinical-0.0. Lab-0.0. Work-0.0

A review of current plumbing codes, laws and regulations useful in preparing for journeyman or contractor license exam.

PLU 7015. Backflow Assembly Tester Certification. 0.0 Hours. Class-50.0. Clinical-0.0. Lab-0.0. Work-0.0

This course will develop entry level skills and working knowledge of the causes and principles of backflow and backflow prevention will be demonstrated. Recognizing proper backflow prevention assembly application, installation and operation is stressed. Record keeping and backflow program responsibilities are also covered. Student should have knowledge of hydraulic principles and laws, along with plumbing code requirements. Reading, math and mechanical skills are also needed.

PLU 7016. Backflow Prevention Assembly and Tester Recertification. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0

This course will focus on reviewing the basic skills and knowledge for a backflow assembly field tester. The student must have completed a CMUD (Charlotte Mecklenburg Utility Department) approved course in cross connection control and require recertification of original certificate.

PLU 7017. Residential/Commercial Plumbing Level I, Part I. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level 1 - Level 4 training required for journeymen plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: Courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

Prerequisites: Take PLU 7010 with a minimum grade of S

PLU 7018. Residential/Commercial Plumbing Level I, Part II. 0.0 Hours. Class-653.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level I - Level IV training required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: Courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

Prerequisites: Take PLU 7010 PLU 7017 with a minimum grade of S

PLU 7020. Residential/Commercial Plumbing Level II, Part I. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level II required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: Students must complete the plumbing apprentice core skills course and courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 with a minimum grade of S

PLU 7021. Residential/Commercial Plumbing Level II, Part II. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level II required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: Students must complete the plumbing apprentice core skills course and courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 PLU 7020 with a minimum grade of S

PLU 7030. Residential/Commercial Plumbing Level III, Part I. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0

This preparatory apprenticeship training is designed to provide Plumbing Level III required for journeymen plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Pre-requisite: Students must complete the plumbing apprentice core skills course and courses must be taken in sequence. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to be indentured apprentices with the NC Department of Labor.

Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 PLU 7020 PLU 7021 with a minimum grade of S
PLU 7031. Commercial/Residential Plumbing Level III, Part II. 0.0 Hours. Class-210.0. Clinical-0.0. Lab-0.0. Work-0.0
This preparatory apprenticeship training is designed to provide Plumbing Level III required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: PLU 7010, Residential/Commercial Plumbing Level I, Pt 1; PLU 7017, Residential/Commercial Plumbing Level I, Pt 2; PLU7020 Residential/Commercial Plumbing Level II, Pt 1; PLU 7021 Residential/Commercial Plumbing, Level II, Pt 2; PLU 7030 Residential/Commercial Plumbing, Level III, Pt 1. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to become indentured apprentices with the NC Department of Labor. Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 PLU 7020 PLU 7021 PLU 7030 with a minimum grade of S

PLU 7040. Commercial/Residential Plumbing Level IV, Part I. 0.0 Hours. Class-210.0. Clinical-0.0. Lab-0.0. Work-0.0
This preparatory apprenticeship training is designed to provide Plumbing Level IV required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: PLU 7010, Residential/Commercial Plumbing Level I, Pt 1; PLU 7017, Residential/Commercial Plumbing Level I, Pt 2; PLU7020 Residential/Commercial Plumbing Level II, Pt 1; PLU 7021 Residential/Commercial Plumbing, Level II, Pt 2; PLU 7030 Residential/Commercial Plumbing, Level III, Pt 1; PLU 7031 Residential/Commercial Plumbing, Level III, Pt 2. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to become indentured apprentices with the NC Department of Labor. Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 PLU 7020 PLU 7021 PLU 7030 PLU 7031 with a minimum grade of S

PLU 7041. Commercial/Residential Plumbing Level IV, Part II. 0.0 Hours. Class-210.0. Clinical-0.0. Lab-0.0. Work-0.0
This preparatory apprenticeship training is designed to provide Plumbing Level IV required for journeyman plumbers. The program consists of four years of training with a minimum of 144 hours of instruction per year. Prerequisite: PLU 7010 Core; PLU 7017 Residential/Commercial Plumbing Level I, Pt 1; PLU 7018 Residential/Commercial Plumbing Level I, Pt 2; PLU7020 Residential/Commercial Plumbing Level II, Pt 1; PLU 7021 Residential/Commercial Plumbing, Level II, Pt 2; PLU 7030 Residential/Commercial Plumbing, Level III, Pt 1; PLU 7031 Residential/Commercial Plumbing, Level III, Pt 2; PLU 7040, Residential/Commercial Plumbing, Level IV, Pt 1. This course was developed by contractors and the NC Department of Labor. Students in this program are intended to become indentured apprentices with the NC Department of Labor. Prerequisites: Take PLU 7010 PLU 7017 PLU 7018 PLU 7020 PLU 7021 PLU 7030 PLU 7031 PLU 7040 with a minimum grade of S

PLU 7101. Introduction to Plumbing. 0.0 Hours. Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0
This is an introduction course to the plumbing trade with an emphasis on residential plumbing materials and installation methods.

PLU 7200. Blueprint Reading for Plumbing. 0.0 Hours. Class-72.0. Clinical-0.0. Lab-0.0. Work-0.0
Introduces the types of plumbing drawings on the job. Discusses how to interpret & apply them when laying out & installing plumbing systems. Discusses symbols used in plumbing & mechanical drawings & reviews isometric, oblique, orthographic and schematic drawings. Trainees render plumbing drawings and recognize how code requirements apply to plumbing drawings. Teaches trainees to interpret and use civil, architectural, structural, mechanical, plumbing and electrical drawings when installing plumbing systems, and create and use isometric drawings, material takeoffs and approved submittable data.

PLU 7500. Plumbing Pre-Employment Training. 0.0 Hours. Class-54.0. Clinical-0.0. Lab-0.0. Work-0.0
This course trains participants for entry-Level positions with specific employers to perform the basic tasks to install residential and light commercial plumbing systems.

PLU 8000. Residential/Commercial Plumbing Level I. 0.0 Hours. Class-653.0. Clinical-0.0. Lab-0.0. Work-0.0
This class provides plumbing apprentices and those entering the trade with a certificate of completion in basic plumbing. The topics covered include safety, construction math, hand and power tool use and blueprint reading with emphasis in each of these areas on plumbing. Competency testing is required and will be both in written and practical form. This class is the pre-requisite for the plumbing series of classes.

PLU 8001. Residential/Commercial Plumbing Level II. 0.0 Hours. Class-784.0. Clinical-0.0. Lab-0.0. Work-0.0
This class provides plumbing apprentices and current craft workers with a certificate of completion in basic plumbing. The topics covered include plumbing safety, introduction to plumbing math, plumbing tools, introduction to plumbing drawings, plastic, copper, and cast iron pipe and fittings. Competency testing is required and will be both written and practical form.

Postal Service (POS)
Pre-Employment Training (PRE)
PRE 7000. Employment Readiness I. 0.0 Hours. Class-300.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will provide participants with employment readiness skills including keyboarding, computer applications, business English and business math skills.

PRE 7001. Employment Readiness Skills Applications. 0.0 Hours. Class-144.0. Clinical-0.0. Lab-0.0. Work-0.0
This course utilizes Microsoft’s Unlimited Potential Learning Curriculum to teach practical, real world applications of integrated software including word processing, spreadsheets, databases, presentations, internet, e-mail, digital media. Keyboarding techniques included focus on building speed and accuracy in word processing and 10-key operations.

PRE 7606. Pre-Employment Training. 0.0 Hours. Class-180.0. Clinical-0.0. Lab-0.0. Work-0.0
The purpose of this course is to prepare inmates to enter the workforce upon their release, parole, or placement in a work release program. Topics covered include job interviewing skills, resume preparation, productive behavior in the workplace and relationships with supervisors and other employees.

PRE 7607. Life Skills. 0.0 Hours. Class-330.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is designed to provide learners with the knowledge and skill necessary to live and work more productively by improving personal decision making, interaction, learning and career development skills.

Printing (PRN)
PRN 7000. Flexography I. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0
PRN 7100. Seminar in Flexography Applications I. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0
PRN 7300. Screen Printing. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

Process Control Instrumentation (PCI)

PCI 7170. LabView Fundamentals I. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a survey of data acquisition and control applications in an industrial setting. Topics include remote I/O systems, PC-based data acquisition, real-time monitoring and other related topics. Upon completion, students should be able to demonstrate an understanding of data acquisition circuits. This course is a certified National Instruments Academy course and will cover the material to help prepare for the National Instruments Certified LabView Associate Developer certification.

PCI 7173. Basic Programmable Systems. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
The course is a focuses on programmable systems used in industry. Topics include PLC systems, and PAC systems used in control systems implementation. Upon completion, students should be able to demonstrate an understanding of the programming, troubleshooting, configuration, maintenance and planning involved in control systems. To introduce students to the similarities and differences of PLCs and PACs; and to the design of basic PLC and PAC programs using discrete and analog I/O, timers, counters, math functions, and operator interfaces; and to the sharing of data between PLC and PAC systems using appropriate industrial networks and human machine interface (HMI) software.

Production Crafts (PRC)

Pulp and Paper Technology (PPT)

PPT 7001. Pipe Trades Training Level I, Part I. 0.0 Hours. Class-91.0. Clinical-0.0. Lab-0.0. Work-0.0
This is the first course in the first year of the pipe trades training program for apprentice plumbers, pipefitters, and sprinkler fitters.

PPT 7002. Pipe Trades Training Level I, Part II. 0.0 Hours. Class-96.0. Clinical-0.0. Lab-0.0. Work-0.0
This course is a continuation of the first level of training core for pipe trades apprentices. Subjects covered include applied science and math calculations for piping offsets and elevations.

Radiography (RAD)

Reading (RED)

RED 7090. Improved College Reading - Abridged. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Fast Track RED 7090 is a fast-paced, intensive abridgement of Improved College Reading in a standard instructor-student format. The prerequisite for the course is successful completion of RED 080 or the appropriate placement-test score. After successful completion of the course, which includes a retaking of the Reading-Comprehension placement test, a student may advance to ENG 111, provided that the additional prerequisite of ENG 090 with a grade of "C" or higher or the appropriate Sentence-Skills placement-test score has been met.
Prerequisites: Complete one of the following options:
- Take RED 080
- Take ENG 085 ENG 085A

Real Estate (RLS)

Real Estate Appraisal (REA)

Recreation (REC)

REC 7060. Tai Chi for Health, 73 Forms. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Explore the 73 forms of the Sun Style set as you continue the study and practice of Tai Chi. This intermediate class builds on the skills learned in Tai Chi for Health and centers on the 73 forms of Sun Style, the youngest among the five leading styles of the Tai Chi set. Sun Style uses compactness of movement, agile steps and flowing movements to create a fitness exercise and a moving meditation.

REC 8105. Ten Weeks to Health. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Need help on your road to better health, or just want to experience a variety fitness and health activities? This course is a safe, fun, gradual introduction to fitness and health. The course consists of basic health information such as diet, exercise safety, creating your own fitness programs, stress reduction, motivation, as well as experiencing a variety of fitness activities such as Pilates, Tai-chi, Strength Training, Fitness Walking, Hip-Hop Aerobics, and more. Students will have access to the fitness rooms at all CPCC locations for the entire semester.

REC 8106. Jump Rope Fitness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Put the fun back into your fitness program. Jump your way to better health with this high energy jump rope class. This class provides you a fun total body workout that is one of the best fat-burning aerobic activities. The course teaches safe and effective jumping techniques for developing strength, cardiovascular endurance, coordination, power and more. Jump to the music and watch the time fly by. Price includes personal jump rope for you to keep.

REC 8107. Extreme Cardio. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Bored with your current fitness regime and wanting more from your fitness classes? Extreme Cardio puts high energy dance moves to up-tempo music. Enjoy motivational routines of extreme choreography that can take you to the next level of health and fitness.
Are you ready to hit below the belt? Backside, Legs, and Thighs is a concentrated class that provides 30 minutes of targeted exercises. This low-impact class is a great place to start your journey to better health, and a great addition to any fitness program.

REC 8109. Hip-Hop/Latin Dance Aerobics. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Looking for a new way to exercise? Dance it off! Learn a mixture of both Hip-Hop and Latin dance fitness routines. Get a great workout while learning a few new dance steps. Move to the exciting rhythms of both Hip-Hop and Latin sounds while burning calories and creating strength and muscle endurance.

REC 8110. Aerobics. 0.0 Hours. Class-23.0. Clinical-0.0. Lab-0.0. Work-0.0

This course introduces a program of cardiovascular fitness. Emphasis on developing strength, flexibility and cardiovascular efficiency.

REC 8111. Step Aerobics. 0.0 Hours. Class-23.0. Clinical-0.0. Lab-0.0. Work-0.0

This course provides an introductory program of cardiovascular fitness involving rhythmic exercise conducted on the bench stepper. Emphasis is placed on a wide variety of safe and effective aerobic activities, including cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to master the bench step and participate in a 45 minute cardiovascular routine.

REC 8112. Weekday Boot Camp Fitness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Start your day with an invigorating workout. Join us before work to participate in this motivational, military style fitness session. The early morning time allows you to get fit without disrupting your busy schedule. Free locker and shower facilities are available on site.

REC 8115. Pilates for Beginners. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0

Experience Pilates and enjoy the many benefits of this popular fitness activity. Pilates has long been one of the best forms of exercise for overall conditioning, toning and relaxation. This course will introduce you to the basics of the Pilates method of exercise with topics including proper breathing techniques, flexibility, reaching deep muscles for strengthening and toning and achieving correct body postures.

REC 8116. BOSU Blast. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

BOSU Blast Add versatility to your workout! The BOSU Balance Trainer is a dome-shaped device that offers a challenge for your core and stability muscles. Utilizing low-impact step patterns, athletic power movements and a variety of simple dance steps this class offers a cardio workout with balance and stabilization challenges. All abilities welcome.

REC 8117. Turbo Kickboxing. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

Sick of staring at the treadmill or the TV? Looking for a not-so-boring workout alternative? Turbo Kickboxing is an up-tempo invigorating style of aerobics. You get a full body, high-energy workout of boxing and kickboxing without sparring or body contact. This introductory course will cover the basic technique and combinations. Benefits include cardio endurance, muscle strength, flexibility and increased metabolism.

REC 8118. Boot Camp Fitness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Add variety to your fitness regimen! Sign up for Boot Camp Fitness, a military style, motivational training class that's packed with fun and energizing activities designed to help students reach their fitness goals. This class brings the discipline and training of our armed forces to regular people who are looking for a new and fun way to get in shape. Based on activity drills from military physical training, Boot Camp Fitness can provide an intense physical workout in a short period of time that challenges both the cardiovascular system and the larger muscles of the body.

REC 8121. Officer Agility Training. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Do you have what it takes Physically to become a Police Officer? Put your physical condition to the test. This course is open to anyone ready for a fitness challenge. The Police Officers Physical Agility Test is an obstacle course used in officer training. The class will train using the POPAT as the backdrop to increase your overall fitness level. Students must be ready to maintain moderate to intense outdoor activity for sustained time (30-45 minutes).

REC 8128. Techniques for Relaxation and Stress Relief. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Leave your everyday stress at the door and join us as we work to rediscover peace, health, happiness, and sleep all in a nurturing, compassionate and judgment-free environment. This course will guide you with a variety of techniques including meditation, laughter yoga, and nutrition, each designed to calm your mind, soothe your body and renew your spirit while immersing you in a practical, nourishing mode that will allow you to return to your most healthy self.

REC 8200. Strength and Stability. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0

Join us in this combination of low-impact exercises to improve your strength and balance. Improving muscular strength and coordination has been proven to boost your overall health and maintain a healthy active lifestyle. Activities are designed to address the common needs of overall strength and stability while working at your own pace and skill level. The class will use techniques taken from a variety of disciplines and use tools, including stability balls and hand weights.

REC 8211. Dance Basics. 0.0 Hours. Class-8.0. Clinical-0.0. Lab-0.0. Work-0.0

Put your best foot forward as you dance the night away. Join us and learn four basic, beginning popular dances - the building blocks for all other dances. Whether you have an upcoming wedding, an important social engagement or just want to add some spice to your life, dancing helps you combine fun, fitness and social interaction for your leisure time. This class introduces: Foxtrot, Waltz, Cha-Cha and Swing. At the completion of the class, you will understand leading and following at a beginning level, giving you the confidence and skill for any social occasion. Best of all, no long term contracts or commitments in our classes: just fun!

REC 8212. Social Dance for Beginners II. 0.0 Hours. Class-10.0. Clinical-0.0. Lab-0.0. Work-0.0

For students who have successfully completed REC 8211-Social Dance for Beginners, this course is designed to expand knowledge, technique, and familiarity in the following four steps: Foxtrot, Swing, Cha-Cha and Waltz. Students will progress beyond the fundamentals steps taught in REC 8211. Wear comfortable shoes with leather soles. Pre-requisite: REC 8211 OR PED 187.
REC 8213. Argentinean Tango. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Argentine Tango known as the dancer’s dance; one of the most romantic of all partnership dances! This program is designed to introduce the style & characteristic of the Argentine Tango while developing the leader’s ability to combine and arrange differing patterns, and freedom of expression to the music. Learning this unique dance will enhance the way leading/following should be emphasized. The follower will develop the sensitivity to leads as well as creative expression through learning quick and slow actions, flicks, kicks and drags. Attention will be on the unique style and technique of this exciting dance. Wear comfortable shoes with leather soles. Course Note: students should enroll with a partner; register individually.

REC 8215. First Dance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Have an upcoming wedding or social occasion in which you are hoping to lead off the first dance with your special partner? Couples in this class will learn basic leading and following techniques of the Fox trot and Waltz, making their first dance a truly memorable experience. Approximately 4 basic dance steps will be taught in each dance. Bring a CD with your own special "first dance" music on it to class. Wear comfortable shoes with leather soles.

REC 8216. Social Dance for Women. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Ready to step out? YES! It’s "Girls Only" in this class designed for fun, great exercise, and to boost your personal confidence in dancing with future partners. You’ll learn the rhythm of dance and the basic female steps to follow the male lead. Practice and find comfort among friends as you perfect the basic steps in popular and traditional dances, including the Swing, Fox trot, Rumba, Cha-Cha and Waltz and one additional dance, such as the Tango.

REC 8220. Mindful Health Workshop. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Leave your everyday stress at the door and join us as we work to rediscover peace, health, happiness and sleep all in a nurturing, compassionate and comfortable environment. This course will introduce you to a variety of relaxation techniques including meditation and laughter yoga; each designed to calm your mind, soothe your body and renew your spirit.

REC 8221. Guided Sleep Seminar. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Better sleep has been shown to increase health, job performance, even love. Join Guru Ranjit as he guides you to achieve better sleep. You will learn relaxation techniques and practice meditation, laughter yoga and deep yoga breathing. He will also address the importance of nutrition and sleep technique.

REC 8230. Introduction to Boot Camp Fitness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
If you always wanted to try a boot camp fitness class, this is the one. We will start you off on the right path. No experience necessary. The workout will be challenging and fun. You will advance at your own pace and never be left behind. Join us to participate in this motivational, military style fitness class. Free lockers and shower facilities are available on site.

REC 8301. Yoga for Beginners. 0.0 Hours. Class-18.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the tradition of yoga. For 5,000 years yoga has been used to enhance one’s physical and mental well-being. This course introduces the basic discipline of yoga. Topics include proper breathing techniques, relaxation and correct body positions.

REC 8302. Intermediate Yoga. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Expand on the principles taught in beginning Yoga! Emphasis will be placed on deepening breathing techniques, relaxation, posture, and mental concentration. Pre-requisites: REC 8301, REC 8304 OR PED 122.

REC 8303. Advanced Yoga. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will expand upon the basic principles learned in Intermediate Yoga. Pre-requisites: REC 8301, 8302, 8304 OR PED 122.

REC 8305. Tennis for Beginners. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Tennis is an affordable outdoor activity that can provide a lifetime of enjoyment. Students will learn the fundamentals of the game, enabling them to enjoy recreational tennis. This class will review tennis rules, etiquette, court play and the basic strokes: forehand, backhand, serve, volley, overhead, dropshot and lob.

REC 8306. Advanced Tennis for Beginners. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Take the skills learned in Tennis for Beginners to the next level! This course will refine your strokes, teach advanced serves, and develop the strategy and place for singles and doubles play. Upon completion, students should be able to play competitive tennis. Pre-requisites: Tennis for Beginners (REC 8305).

REC 8401. Golf for Beginners. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Golf is one of the most popular recreational pastimes, played for business and pleasure. This course emphasizes the fundamentals needed to practice and play the game of golf. Topics include the proper grips, alignment, stance and swings for the long and short game.

REC 8402. Intermediate Golf. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Are you ready for the next level? This course is designed to advance your fundamental golf skills. Topics include long and short game refinement and introduction to course management. Extra fees, approximately $6 each class for range balls, are charged for this course and are to be paid at the facility. Students need to bring their own clubs.

REC 8405. Women Are Golfers Too. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Join the crowd. Don’t be the only person in your office or family that doesn’t know how to tee it up! Specifically designed for women to learn the fundamentals of golf including: grip, stance, posture, swing, rules and etiquette. Extra fees, approximately $6 each class for range balls, are charged for this course and are to be paid at the facility. Students need to bring their own clubs.

REC 8406. Intermediate Golf for Women. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Ladies are you ready for the next level? This course is designed for women to advance their fundamental golf skills. Topics include long and short game refinement and introduction to course management. Extra fees are charged for this course and are to be paid at the facility (Approximately $7 each class for range balls). Students should bring their own clubs, clubs designed for women preferable.
REC 8410. The Mental Game of Golf. 0.0 Hours. Class-4.0. Clinical-0.0. Lab-0.0. Work-0.0
Improve your golf game by uncovering the attitudes and mental barriers that prevent you from performing your best. Learn to analyze how these mental aspects affect golf performance, play and development. This workshop introduces students to the inner game of golf and provides insights and applications designed to take your golf game to a new level. Workshop led by William Brinnier, Psychology Professor and author of "The Psychology of Phenomenal Golf: The Inner Science of Development."

REC 8460. Kayaking for Beginners. 0.0 Hours. Class-14.0. Clinical-0.0. Lab-0.0. Work-0.0
From local reservoirs, to a mountain rapid or the sea, kayaking is a great way to explore the outdoors. This course is taught at one of our local lakes and is designed to teach the basic skills of flat water kayaking. Topics include forward and reverse strokes, sweeps and self-rescue skills. Sea kayakers welcome in this course. Dress to get wet!

REC 8501. Recreational Soccer. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Students will learn the fundamentals of the world’s most popular sport: soccer. The basics of ball handling, field play, and strategy will be taught and discussed. Opportunities for skill development will be provided in game situations. All levels of experience are welcome.

REC 8600. Belly Dance. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Belly dancing is a wonderful, fun way to exercise and celebrate the human form in all shapes and sizes. Today belly dancing is highly regarded as a fun way to strengthen core muscle and keep fit. Learn to isolate core muscles to create smooth, undulating movements and control individual parts of the body in the abdomen, pelvis and spine for greater fitness and flexibility.

REC 8601. Egyptian Belly Dance for Intermediate Beginners. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In this level two belly dancing class, students will expand upon the basic skills learned in REC 8600-Egyptian Belly Dance. In addition to proper posture, hands, arms and feet positioning, students will now begin to expand their dance routine with the addition of props such as zills (finger cymbals) and veils. Music, an integral part of the dance will also be utilized. Please wear comfortable, loose fitting clothing to class that does not restrict your movement. Course note: previous bellydance experience required.

REC 8700. Kendo - the Art of Japanese Fencing. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Kendo, is the art of Japanese fencing. "Ken" or tsurugi is from the character meaning sword. The character for "Do" or michi includes the meaning way or path which translates as "The way of the sword". This course will introduce you to the fundamentals and philosophies of Kendo while allowing continued development for experienced students. Kendo success is achieved through physical effort, mental discipline and honest self-examination. Continuous training in kendo is rewarded with respect for ourselves, opponents and others. Kendo is one art that can be started at any age level and expand to a spirit of self improvement. Kendo practice consists of several different exercises designed to improve strength and skill as required in Kendo. Students are required to pay an equipment use fee of $40, due the first night of class.

REC 8800. Chinese Martial Arts - Bagua/Hsing Yi Superfitness. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Bagua and Hsing Yi are ancient martial arts from China. Together with Tai Chi, they are considered the "three internal martial arts." While Tai Chi is commonly taught using slow movement with emphasis on stability and balance, Bagua and Hsing Yi take the power of Tai Chi and make it move. Bagua uses fast, circling movements and teaches stability-within-instability. Hsing Yi teaches fast, linear movement and focused intentional energy. The dynamic nature of Bagua and Hsing Yi movement improves overall fitness by increasing strength, stability, flexibility and endurance. Students will learn traditional Bagua and Hsing Yi exercises, including Chi Gong, traditional forms and meditation in a safe and fun manner.

REC 8845. Latin Dance - Salsa and Beyond. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Learn the fundamental principles that are the foundation of Tai Chi. Tai Chi is a gentle art form, practiced for thousands of years, that conditions both mind and body. Students will be guided step-by-step through the simple movements and breathing exercises that clear the mind, calm the emotions and relax the body.

REC 8946. Salsa Styling and Shines for Women. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
Calling all Salseras - Women, learn to add style, personality and attitude to your dancing. The art of Salsa dancing traces its origins back to Cuba and its Afro-Cuban roots; starting with the Rumba. While emphasis is placed on hip movements, styling of the arms and shoulders are also an integral portion of Salsa dancing. In Salsa, the arms are used by the lead dancer, to signal his partner an open or closed position is coming up during the dance. By "styling" her moves, the woman can shine or "show off" between the man's moves in Salsa or just "show off" on any dance floor. Get a taste of the most beautiful and sensual dance ever created and get in touch with the soul you didn't even know you had. Join our expert Salsa styling instructor and be the envy of ANY dance floor.

REC 8955. Carolina Shag. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Born at the beach, Carolina Shag is the beloved dance of the Carolinas and is designed to teach the basic skills of flat water kayaking. Topics include forward and reverse strokes, sweeps and self-rescue skills. Sea kayakers welcome in this course. Dress to get wet!

REC 8950. East Coast Swing. 0.0 Hours. Class-12.0. Clinical-0.0. Lab-0.0. Work-0.0
Jump, jive and wail as you learn East Coast Swing. This is a fun, up-tempo style of dance combining the elements of Swing, Lindy Hop and Jitterbug dance moves. The music is fast-paced and can be danced to traditional swing music, boogie-woogie and even rock and roll. There will be an option to go on an outside field trip with your instructor to a Swing dance event, to perfect your dance steps in a "real world" social setting.

REC 8955. Carolina Shag. 0.0 Hours. Class-16.0. Clinical-0.0. Lab-0.0. Work-0.0
Born at the beach, Carolina Shag is the beloved dance of the Carolinas and is a favorite at local clubs and parties. This fun-filled class gets you up to speed with the fundamental steps in Carolina Shag dancing: basic eight-count, start, turn, pivot, lean and boogie walk, crossover, sugar foot and belly roll. Learn why this dance has endured and is still a "staple" of the local dance scene.
Now that you’ve mastered the fundamental shag steps, kick it up a notch in this fun-filled part two class. Dust off those dancing shoes as you learn and practice the next steps in the art of shag dance. You and your partner will be the envy of dancers at the beach, local clubs and at parties as you master show-off steps in intermediate shag.

Participants will continue to learn and refine the Golden Flower Tai Chi form. This dynamic sequence of movements is designed to help you slow down and refresh your energy. The step-by-step process of learning this sequence generates strength, mental focus and the conscious ability to create balance in your life. Participants will also learn QiGong and Tai Chi movement applications which have been used for centuries to integrate the body, mind and spirit.

Prerequisites: Take REC 8860 REC 8960 or LLI 7058 none

Participants will refine the fundamental principles that are the foundation of Tai Chi. Students will be provided with the opportunity to learn and practice traditional Tai Chi exercises, including movement sets, advanced breathing exercises, meditation techniques, internal Chi Gong practices and practical application of Tai Chi principles.

Learn karate techniques in combination with personal awareness, assertiveness, and verbal confrontation skills. Emphasis placed on the basic and most useful stances, blocks, punches, and kicks. Progress through the levels of Kempo Karate or simply increase your ability to protect yourself. Wear comfortable clothes.

This course is designed to aid students in developing rudimentary skills of self defense. Physical and non-physical means of self-defense will be covered.

Don’t wait! Feel better and take charge of your health in this all-in-one course for individuals at all ages and levels of fitness. Our unique program combines expert instruction and personal attention as you plan your path toward a new you. Start with self-assessment. Then, we’ll help you set realistic goals and start your journey of education and hands-on training. Topics include nutritional planning, strength training and fitness exercise. You’ll benefit from increased strength and bone density, cardiovascular health, fat reduction, plus overall decreased health risk. Each meeting includes sessions of learning and practicing a variety of strength and conditioning exercises. Students will learn to develop their own fitness profile toward personalized training and self tracking of their goals. Class meets twice a week for four weeks of education and application, then one night a week for an additional four weeks for continued progress toward their goals. Tuition includes planning and self-assessment tools along with access to the CPCC fitness room for the entire semester.

Safety (SAF)

The purpose of this course is to provide training to persons who are responsible for public safety and enforcement related to child passenger safety laws. Course instruction is provided on the proper use and application of child passenger safety. the course will include information on laws, restraint systems, air bags, special safety needs of children and other related information. This course would be an occupational offering for those agency employees who are required to receive this instruction as part of their job responsibilities.

Self-Supporting Occupational E (SEF)

This course provides an introductory overview of the simulation & game development process. Topics include historical context, content creation strategies and future trends in the industry. Additionally, the course explores how simulations and games are produced, tested and released.

This course introduces the fundamentals of programming languages and tools employed in simulation and game development. Emphasis is placed on programming concepts used to create simulations and games. Upon completion, students should be able to program simple games and/or simulations.

This course introduces the Flash programming environment for use in simulation and game development. Topics include timeline effects, extensibility layers, alias text, globalization tools, ActionScript and lingo programming. Upon completion, students should be able to create a simple simulation or game using Flash.

Small Business Centers (SBC)

Spanish (SPA)

This course introduces the Flash programming environment for use in simulation and game development. Topics include timeline effects, extensibility layers, alias text, globalization tools, ActionScript and lingo programming. Upon completion, students should be able to create a simple simulation or game using Flash.

Central Piedmont Community College
Corporate and Continuing Education Courses

SPA 8002. Command Spanish for Health Care Professionals I. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will prepare non-Spanish speaking health care professionals to provide medical care and attention to Spanish-speaking patients in medical offices and hospitals. This course will also provide transcultural training. Emphasis will be placed on enhancing quality of patient care. No prior knowledge of Spanish is necessary. Materials not included. Students must purchase a Command Spanish manual. This course is offered in partnership with Carolinas HealthCare System. For information, call Edith Valladares at 704/330-6064.

SPA 8003. Workplace Pathways Spanish. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course offers applied Spanish for the workplace to facilitate basic communication with people whose native language is Spanish. Emphasis is placed on oral communication and career specific vocabulary. Upon completion, participants should be able to communicate at a functional level with native speakers and demonstrate cultural sensitivity.

SPA 8070. Acting and Theater in Spanish. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will prepare students to explore, learn, and improve the main areas of the actor’s repertoire: Posture movement, voice, performing text, character, improvisations and concentration.

Surgery (SUR)

Surveying (SRV)

Taxidermy (TXY)

Telecommunications Technology (TCT)

Textiles (TEX)

Traffic (TRA)

Turfgrass Management (TRF)

TRF 7000. Turf Maintenance Practices. 0.0 Hours. Class-20.0. Clinical-0.0. Lab-0.0. Work-0.0
This course covers the following turfgrass information and practices: 1. Turfgrass species and culture, 2. Turf pests and their control, 3. Pesticide.

Water and Wastewater Treatment (WAT)

Web Technologies (WEB)

WEB 7200. Web Technology Series: Principles of Web Design. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
This course will guide you through the entire Web site creation process, while developing and enhancing your HTML, CSS, and visual design skills along the way. You will plan site layout and navigation; progress to Web typography, colors, and images. This is course 1/6 of our Web Technology Certificate.

WEB 7201. Web Technology Series: Principles of HTML, XHTML, and DHTML. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
You will learn the basics of building structured Web pages with HTML and XHTML, how to add text and images to Web pages, how to create frames, tables, and forms, and how to format and design Web pages using Cascading Style Sheets (or CSS). This is course 2/6 of our Web Technology Certificate.

WEB 7202. Web Technology Series: Javascript. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
One of the world’s most used programming language is Javascript. It’s prevalence amongst programmers is just one of reasons why you should learn this language to begin authoring webpages that perform efficiently. This is course 3 of the six part Web Technology Certificate Program.

WEB 7203. Principles of Internet Marketing: Web Technology Series. 0.0 Hours. Class-440.0. Clinical-0.0. Lab-0.0. Work-0.0
In today’s marketplace a digital presence is key. Companies aren’t just looking for a functioning website they are looking for a website that generates revenue! Take your programming skills into the business arena by learning about: site traffic, e-commerce, digital branding and measuring ROI. This is class 4/6 of our Web Technology Certificate.

Welding (WLD)

WLD 7100. Blueprint Reading for Welders. 0.0 Hours. Class-30.0. Clinical-0.0. Lab-0.0. Work-0.0

WLD 7200. Basic Welders II. 0.0 Hours. Class-24.0. Clinical-0.0. Lab-0.0. Work-0.0

Wildland Fire (WLF)

Wood Products (WPP)
Index

A
About CPCC .......................................................... 9
Academic Calendar ................................................ 32
Academic Honors .................................................. 17
Academic Learning Center (ALC) ................................ 39
Academic Related (College-Level) .................................. 280
Academic Related (Corporate and Continuing Education) ...... 439
Accounting .......................................................... 77
Accounting (College-Level) ........................................... 280
Accounting (Corporate and Continuing Education) ................. 439
Accreditations and Memberships ...................................... 28
Administration and Foundation ...................................... 33
Admissions and Testing ................................................ 39
Adult English As A Second Language (Adult ESL) ..................... 67
Adult High School (Pre-College) ..................................... 273
Adult High School Diploma (HSD) ................................... 68
Advanced Placement Examination Course Credit Guidelines ....... 18
Advertising + Graphic Design ........................................ 79
Aerospace and Flight Training (Corporate and Continuing Education) ... 439
Aging Studies ......................................................... 249
Agriculture (College-Level) .......................................... 282
Agriculture (Corporate and Continuing Education) ................. 439
Air Cond, Heating, and Refrig (College-Level) ....................... 282
Air Cond, Heating, and Refrig (Corporate and Continuing Education) ... 439
Air Conditioning, Heating and Refrigeration Technology ............ 80
Allied Healthcare ................................................... 250
Alternative Energy Technology (College-Level) ...................... 283
Alternative Energy Technology (Corporate and Continuing Education) ... 439
American Institute of Banking (Corporate and Continuing Education) ... 439
American Sign Language (College-Level) ............................ 284
American Sign Language (Corporate and Continuing Education) ...... 440
Animal Science (Corporate and Continuing Education) .............. 440
Anthropology (College-Level) ....................................... 286
Applied Technologies ............................................... 250
Apprenticeship (Corporate and Continuing Education) ............. 440
Approved General Education Courses for A.A.S. Degree ............ 76
Architectural Technology ........................................... 84
Architecture (College-Level) ....................................... 286
Architecture (Corporate and Continuing Education) ................. 440
Art (College-Level) .................................................. 288
Associate in Applied Science Degrees, Diplomas & Certificates ....... 75
Associate in Arts (A.A.) ............................................. 230
Associate in Fine Arts (A.F.A.) ..................................... 237
Associate in General Education ...................................... 227
Associate in Science (A.S.) ......................................... 240
Astronomy (College-Level) .......................................... 292
Attendance .......................................................... 18
Auditing Courses ................................................... 19
Automation & Robotics (College-Level) ................................ 292
Automotive (College-Level) .......................................... 292
Automotive (Corporate and Continuing Education) .................. 440
Automotive Body Repair (College-Level) ................................ 294
Automotive Systems Technology ...................................... 86
Automotive, Motorsports and Related Training ......................... 252
Aviation Electronics Tech (Corporate and Continuing Education) ... 440
Aviation Maintenance (Corporate and Continuing Education) ....... 440
Avocation (Corporate and Continuing Education) ..................... 441
Baking and Pastry Arts .............................................. 90
Baking and Pastry Arts (College-Level) ................................ 295
Baking and Pastry Arts (Corporate and Continuing Education) ....... 443
Baking and Finance (College-Level) ................................ 296
Baking and Finance (Corporate and Continuing Education) .......... 443
Basic Law Enforcement Training ..................................... 92
Biology (College-Level) ............................................. 296
Biology (Pre-College) ................................................ 273
Biotechnology (Corporate and Continuing Education) ............... 443
Blueprint Reading (College-Level) .................................. 298
Blueprint Reading (Corporate and Continuing Education) .......... 443
Bookstores .................................................................. 43
Business (College-Level) ............................................ 298
Business (Corporate and Continuing Education) ....................... 443
Business Administration ............................................. 93
Cabinetmaking (Corporate and Continuing Education) ............... 448
Campuses ................................................................ 11
Cardiovascular Tech (Invasive) (College-Level) ....................... 301
Cardiovascular Tech Non-Invasive (College-Level) .................... 302
Cardiovascular Technology ......................................... 101
Career and College Promise .......................................... 44
Career Resources ................................................... 44
Carpentry (College-Level) .......................................... 303
Index

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpentry (Corporate and Continuing Education)</td>
<td>448</td>
</tr>
<tr>
<td>Catalog Home</td>
<td>7</td>
</tr>
<tr>
<td>Cato Campus</td>
<td>12</td>
</tr>
<tr>
<td>Center for Sustainability</td>
<td>252</td>
</tr>
<tr>
<td>Central Campus</td>
<td>13</td>
</tr>
<tr>
<td>Central Campus Tours for Prospective Students</td>
<td>14</td>
</tr>
<tr>
<td>Central Sterile Processing (Corporate and Continuing Education)</td>
<td>449</td>
</tr>
<tr>
<td>Certificates, Certifications, Licensure and Exam Prep</td>
<td>268</td>
</tr>
<tr>
<td>Changing Careers</td>
<td>269</td>
</tr>
<tr>
<td>Changing Grades</td>
<td>19</td>
</tr>
<tr>
<td>Chemistry (College-Level)</td>
<td>303</td>
</tr>
<tr>
<td>Chemistry (Corporate and Continuing Education)</td>
<td>449</td>
</tr>
<tr>
<td>Chemistry (Pre-College)</td>
<td>273</td>
</tr>
<tr>
<td>Civil Engineering (College-Level)</td>
<td>305</td>
</tr>
<tr>
<td>Civil Engineering and Geomatic (College-Level)</td>
<td>306</td>
</tr>
<tr>
<td>Civil Engineering Technology</td>
<td>103</td>
</tr>
<tr>
<td>Clinical Trials Research (Corporate and Continuing Education)</td>
<td>449</td>
</tr>
<tr>
<td>Code Enforcement (Corporate and Continuing Education)</td>
<td>449</td>
</tr>
<tr>
<td>College Policies and Procedures</td>
<td>17</td>
</tr>
<tr>
<td>College Security</td>
<td>45</td>
</tr>
<tr>
<td>College Transfer Programs</td>
<td>229</td>
</tr>
<tr>
<td>College-Level Courses</td>
<td>280</td>
</tr>
<tr>
<td>College-Level Examination Program (CLEP)</td>
<td>20</td>
</tr>
<tr>
<td>College-Level Programs</td>
<td>75</td>
</tr>
<tr>
<td>Collision Repair and Refinishing Technology</td>
<td>105</td>
</tr>
<tr>
<td>Communication (College-Level)</td>
<td>306</td>
</tr>
<tr>
<td>Communication (Corporate and Continuing Education)</td>
<td>452</td>
</tr>
<tr>
<td>Computed Tomography (Corporate and Continuing Education)</td>
<td>452</td>
</tr>
<tr>
<td>Computer and Information Technology</td>
<td>252</td>
</tr>
<tr>
<td>Computer Applications (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Computer Engineering Technolog (College-Level)</td>
<td>308</td>
</tr>
<tr>
<td>Computer Engineering Technology</td>
<td>106</td>
</tr>
<tr>
<td>Computer Information Technolog (College-Level)</td>
<td>309</td>
</tr>
<tr>
<td>Computer Information Technolog (Pre-College)</td>
<td>273</td>
</tr>
<tr>
<td>Computer Science (College-Level)</td>
<td>310</td>
</tr>
<tr>
<td>Computer Science (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Computer Tech Integration (College-Level)</td>
<td>313</td>
</tr>
<tr>
<td>Computer Technology Integration</td>
<td>109</td>
</tr>
<tr>
<td>Computer-Integrated Machining Technology</td>
<td>121</td>
</tr>
<tr>
<td>Construction (College-Level)</td>
<td>313</td>
</tr>
<tr>
<td>Construction (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Construction Management (College-Level)</td>
<td>313</td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>125</td>
</tr>
<tr>
<td>Cooperative Education (College-Level)</td>
<td>314</td>
</tr>
<tr>
<td>Corporate and Continuing Education</td>
<td>249</td>
</tr>
<tr>
<td>Corporate and Continuing Education Courses</td>
<td>439</td>
</tr>
<tr>
<td>Corporate Learning Center</td>
<td>249</td>
</tr>
<tr>
<td>Cosmetology</td>
<td>127</td>
</tr>
<tr>
<td>Cosmetology (College-Level)</td>
<td>315</td>
</tr>
<tr>
<td>Cosmetology (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Counseling and Advisement</td>
<td>45</td>
</tr>
<tr>
<td>Course Credit Guidelines for Military Service</td>
<td>20</td>
</tr>
<tr>
<td>Course Load Regulation</td>
<td>19</td>
</tr>
<tr>
<td>Course Substitution</td>
<td>20</td>
</tr>
<tr>
<td>Course Waiver</td>
<td>20</td>
</tr>
<tr>
<td>Courses and Programs</td>
<td>249</td>
</tr>
<tr>
<td>CPCC Broadcasting</td>
<td>46</td>
</tr>
<tr>
<td>Credentials</td>
<td>268</td>
</tr>
<tr>
<td>Credit By Examination</td>
<td>21</td>
</tr>
<tr>
<td>Criminal Justice (College-Level)</td>
<td>316</td>
</tr>
<tr>
<td>Criminal Justice (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Criminal Justice Technology</td>
<td>129</td>
</tr>
<tr>
<td>Culinary (College-Level)</td>
<td>319</td>
</tr>
<tr>
<td>Culinary (Corporate and Continuing Education)</td>
<td>453</td>
</tr>
<tr>
<td>Culinary Arts</td>
<td>132</td>
</tr>
<tr>
<td>Customized Ind Training Prog (Corporate and Continuing Education)</td>
<td>454</td>
</tr>
<tr>
<td>Cyber Crime Technology (College-Level)</td>
<td>322</td>
</tr>
<tr>
<td>Cyber Crime Technology (Corporate and Continuing Education)</td>
<td>482</td>
</tr>
<tr>
<td>Cytotechnology</td>
<td>133</td>
</tr>
<tr>
<td>Cytotechnology (College-Level)</td>
<td>323</td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Dance (College-Level)</td>
<td>324</td>
</tr>
<tr>
<td>Database Management Technology (College-Level)</td>
<td>325</td>
</tr>
<tr>
<td>Dental (College-Level)</td>
<td>327</td>
</tr>
<tr>
<td>Dental (Corporate and Continuing Education)</td>
<td>485</td>
</tr>
<tr>
<td>Dental Assisting</td>
<td>134</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>135</td>
</tr>
<tr>
<td>Design: Creative (College-Level)</td>
<td>329</td>
</tr>
<tr>
<td>Design: Creative (Corporate and Continuing Education)</td>
<td>485</td>
</tr>
<tr>
<td>Design: Drafting (College-Level)</td>
<td>331</td>
</tr>
<tr>
<td>Developmental Disabilities (College-Level)</td>
<td>331</td>
</tr>
<tr>
<td>Developmental Mathematics (College-Level)</td>
<td>332</td>
</tr>
<tr>
<td>Developmental Mathematics (Pre-College)</td>
<td>273</td>
</tr>
<tr>
<td>Developmental Reading/English (College-Level)</td>
<td>332</td>
</tr>
</tbody>
</table>
Developmental Reading/English (Pre-College) ........................................ 274
Dialysis (Corporate and Continuing Education) ........................................ 485
Diesel and Heavy Equipment Technology ............................................... 136
Digital Effects and Animation (College-Level) ......................................... 332
Digital Media Technology (College-Level) ................................................ 332
Disability Services .................................................................................... 46
Disclosure .................................................................................................. 31
Drafting (College-Level) ............................................................................ 332
Drafting (Corporate and Continuing Education) ......................................... 485
Drama/Theatre (College-Level) .................................................................... 333

E
Early Childhood Education ......................................................................... 139
Economic Recruitment ................................................................................ 255
Economics (College-Level) ......................................................................... 335
Economics (Corporate and Continuing Education) ..................................... 485
Economics (Pre-College) ............................................................................ 274
Education (College-Level) ......................................................................... 336
Education (Corporate and Continuing Education) ..................................... 487
eLearning .................................................................................................... 47
Electric Line Safety (Corporate and Continuing Education) ...................... 495
Electric Lineman Technology (Pre-College) ............................................... 274
Electric Utility Substation (College-Level) ................................................ 341
Electrical (College-Level) .......................................................................... 341
Electrical (Corporate and Continuing Education) ...................................... 496
Electrical Engineering Technology ............................................................ 142
Electrical Systems Technology .................................................................. 146
Electronic Commerce (College-Level) ....................................................... 343
Electronics (College-Level) ........................................................................ 343
Electronics (Corporate and Continuing Education) .................................... 496
Electronics Engineering Technology .......................................................... 151
Emergency Medical Science (Corporate and Continuing Education) ...... 496
Emergency Preparedness (Corporate and Continuing Education) .......... 496
Energy (Corporate and Continuing Education) .......................................... 496
Engineering (College-Level) ....................................................................... 345
Engineering (Corporate and Continuing Education) .................................. 496
English (College-Level) ............................................................................ 346
English (Corporate and Continuing Education) ......................................... 497
English (Pre-College) ................................................................................ 274
English As a Foreign Language (College-Level) ........................................ 349
English As a Foreign Language (Corporate and Continuing Education) .. 497
English As a Foreign Language (Pre-College) ............................................ 275
English As a Second Language (Corporate and Continuing Education) .. 497
Enrollment and Student Services Directors ............................................... 17
Entertainment Technologies (College-Level) .............................................. 349
Environmental Science (College-Level) ..................................................... 349
Environmental Science (Corporate and Continuing Education) ............. 499
ESL Instructor Fast-Track Training .............................................................. 255
Expanding Industry Training (Corporate and Continuing Education) ... 501

F
Faculty and Professional Staff ................................................................. 34
Federal Student Financial Aid Penalties for Drug Law Violations .............. 50
FERPA Guidelines for Inquiries ................................................................. 50
Film and Video Production (Corporate and Continuing Education) ..... 510
Financial Aid Programs ............................................................................ 50
Financial Aid/Veterans Affairs Fraud and Forgery ..................................... 56
Financial Services Institute ....................................................................... 256
Fire Protection (College-Level) ................................................................. 350
Fire Protection (Corporate and Continuing Education) .......................... 510
Fire Protection Technology ....................................................................... 153
Fisheries (Corporate and Continuing Education) ........................................ 527
Fitness Professionals .................................................................................. 258
Floral Design (College-Level) ..................................................................... 352
Focused Industry Training (Corporate and Continuing Education) ......... 527
Food Service (College-Level) ..................................................................... 352
Foodservice Technology ............................................................................ 155
Foreign Languages (Corporate and Continuing Education) .................... 532
Forest Management (Corporate and Continuing Education) .................... 535
Foundational Skills ................................................................................... 69
French (College-Level) .............................................................................. 352
Funeral Service (Corporate and Continuing Education) .......................... 535
Furniture (Corporate and Continuing Education) ....................................... 535

G
General Educational Development (Corporate and Continuing Education) .................................................................................. 535
General Educational Development (GED) .................................................. 70
General Educational Development (Pre-College) ....................................... 277
Geographic Information Systems (College-Level) ....................................... 535
Geographic Information Systems (Corporate and Continuing Education) 535
Geography (College-Level) ........................................................................ 355
Geology (College-Level) ............................................................................ 355
Geomatics Technology .............................................................................. 156
Geospatial Technology ............................................................................... 159
German (College-Level) ............................................................................. 356
Gerontology (College-Level) ....................................................................... 357
Global Learning .......................................................................................... 47
Index

Glossary ................................................................................................................. 34
Grading Policy ................................................................................................. 21
Graduation ........................................................................................................ 22
Graphic Arts (College-Level) ................................................................. 357
Graphic Arts (Corporate and Continuing Education) .............. 540
Graphic Arts and Imaging Technology .............................................. 164
Graphic Design (College-Level) ......................................................... 359
Graphic Design (Corporate and Continuing Education) ............. 540
Gunsmithing (Corporate and Continuing Education) .......... 540
H
Harper Campus ......................................................................................... 14
Harris Campus ........................................................................................... 14
Hazardous Materials (Corporate and Continuing Education) .... 540
Health (College-Level) ........................................................................... 360
Health (Corporate and Continuing Education) ......................... 541
Health Information Technology .......................................................... 167
Health Information Technology (College-Level) ...................... 258
Health Information Technology (Corporate and Continuing Education) ........................................................................ 361
Health Information Technology (Corporate and Continuing Education) ........................................................................ 547
Healthcare Management (Corporate and Continuing Education) ........................................................................ 547
Heavy Equipment Maintenance (College-Level) ..................... 362
Heavy Equipment Maintenance (Corporate and Continuing Education) ........................................................................ 547
Heavy Equipment Operation (Corporate and Continuing Education) ........................................................................ 547
High Performance Computing (College-Level) ......................... 363
Historic Preservation (Corporate and Continuing Education) ........................................................................ 548
History (College-Level) ................................................................. 364
History of the College ........................................................................... 11
Home Economics (Corporate and Continuing Education) .......... 548
Homemaking (Corporate and Continuing Education) ............. 548
Horticulture (College-Level) .............................................................. 365
Horticulture (Corporate and Continuing Education) .......... 549
Horticulture Technology ................................................................. 169
Hospitality and Event Planning ................................................. 259
Hospitality Management .................................................................. 172
Hospitality, Travel & Tourism (Corporate and Continuing Education) ........................................................................ 549
Hotel & Restaurant Management (College-Level) ................. 368
Human Resource Development (HRD) .................................... 71
Human Resources ...................................................................................... 259
Human Resources Development (Corporate and Continuing Education) ........................................................................ 550
Human Resources Development (Pre-College) ....................... 277
Human Services (College-Level) ...................................................... 369
Human Services (Corporate and Continuing Education) ........ 551
Human Services Technology ........................................................... 176
Humanities (College-Level) .............................................................. 369
Hydraulics (College-Level) ................................................................. 370
Hydraulics (Corporate and Continuing Education) ................. 551
I
Industrial Science (College-Level) ............................................... 370
Industrial Science (Corporate and Continuing Education) ........ 551
Industry Credentials and Professional Development ............ 260
Information Systems (College-Level) .............................................. 371
Information Systems (Pre-College) .................................................. 277
Information Systems Security (College-Level) ......................... 372
Information Systems Security (Corporate and Continuing Education) ........................................................................ 551
Insurance (Corporate and Continuing Education) ................. 551
Interior Design ....................................................................................... 182
International Baccalaureate Course Credit Guidelines ......... 24
International Business (College-Level) .......................................... 373
International Business (Corporate and Continuing Education) ........................................................................ 552
International Learning and Study Abroad ......................... 260
International Student Services ......................................................... 47
Internet Technologies (Corporate and Continuing Education) ........................................................................ 552
Interpreter Preparation (College-Level) ........................................ 374
Interpreter Education ................................................................. 183
J
Job and Career Enhancement ............................................................... 249
Journalism (College-Level) ................................................................. 375
Journalism (Corporate and Continuing Education) ................. 552
L
Laboratory Technology (Corporate and Continuing Education) ........................................................................ 556
Landscape Architecture Technol (College-Level) ................. 375
Language (Corporate and Continuing Education) ................. 556
Language and Culture ................................................................. 260
Late Entry ............................................................................................... 18
Lateral Entry Teacher ................................................................. 185
Learning Lab (Corporate and Continuing Education) ............ 559
Legal Education (College-Level) ...................................................... 376
Legal Education (Corporate and Continuing Education) ........ 559
Levine Campus ....................................................................................... 15
Library Services ..................................................................................... 47
Logistics Management (College-Level) ......................................... 378
Logistics Management (Corporate and Continuing Education) ........................................................................ 559
Lost and Found ....................................................................................... 48
Low Impact Development (College-Level) ......................... 378
M
Machining (College-Level) .................................................. 379
Machining (Corporate and Continuing Education) .................... 559
Maintenance (Corporate and Continuing Education) ................ 559
Management, Leadership, Superv (Corporate and Continuing Education) ........................................... 559
Manufacturing and Technical Skills .................................... 261
Manufacturing Technology .................................................. 185
Marketing and Retailing (College-Level) ............................... 380
Marketing and Retailing (Corporate and Continuing Education) ............................................................ 560
Masonry (Corporate and Continuing Education) ..................... 560
Mathematics (College-Level) .............................................. 383
Mathematics (Corporate and Continuing Education) ................ 560
Mathematics (Pre-College) ................................................. 277
Mechanical (College-Level) ............................................... 385
Mechanical (Corporate and Continuing Education) ................ 560
Mechanical Engineering Technology .................................... 186
Mechanics and Maintenance (Corporate and Continuing Education) ........................................................ 560
Mechatronics Engineering Technology ............................... 189
Medical Assisting .............................................................. 191
Medical Assisting (College-Level) ....................................... 387
Medical Assisting (Corporate and Continuing Education) ....... 561
Medical Laboratory (Corporate and Continuing Education) .... 561
Medical Laboratory Technology ......................................... 193
Medical Laboratory Technology (College-Level) .................... 388
Medical Office Administration ............................................ 195
Medical Sonography (Corporate and Continuing Education) .... 561
Mental Health (Corporate and Continuing Education) ............ 561
Merancas Campus ............................................................. 16
Military Science (Corporate and Continuing Education) ........ 561
Miscellaneous (Corporate and Continuing Education) .......... 562
Mission and Values .......................................................... 9
Music (College-Level) ....................................................... 389

N
N.C. Professional Educators ................................................. 261
Network Operating Systems (College-Level) ......................... 400
Networking Technology (College-Level) ............................. 401
New Industry Training (Corporate and Continuing Education) ............................................................ 563
Non-Destructive Examination Technology .......................... 196
Nondestructive Examination (College-Level) ......................... 402
Notary Public .................................................................. 261
Nuclear Maintenance (Corporate and Continuing Education) .... 567
Nursing (College-Level) ..................................................... 403
Nursing (Corporate and Continuing Education) ...................... 567
Nursing Assistant .............................................................. 199
Nursing Assistant (College-Level) ....................................... 404
Nursing, Associate Degree .................................................. 200
Nutrition (College-Level) ..................................................... 404

O
O.P. and W.T. Crowder Construction Institute ....................... 261
Occupational Therapy Assistant ......................................... 201
Occupational Therapy Assistant (College-Level) .................... 405
Office Administration ....................................................... 202
Office Science Education (Corporate and Continuing Education) ............................................................ 570
Office Systems Technology (College-Level) ......................... 406
Operations Management (College-Level) ............................ 408
Opticianry Medical Assistant ............................................. 208
Opticianry (College-Level) .................................................. 408
Opticianry (Corporate and Continuing Education) ............... 571
OSHA, EPA, HAZMAT & Other Gov (Corporate and Continuing Education) ........................................ 567

P
Paralegal Technology ........................................................ 209
Pathways to Careers ........................................................ 72
Paying for College ........................................................... 48
Payroll Professionals ......................................................... 265
Performing Arts ............................................................... 265
Personal Enrichment ........................................................ 269
Personal Finance .............................................................. 265
Pharmacy (College-Level) ................................................... 409
Pharmacy (Corporate and Continuing Education) ............... 571
Pharmacy Technology ....................................................... 211
Philosophy (College-Level) ............................................... 410
Photography (Corporate and Continuing Education) .......... 571
Physical Education (College-Level) ..................................... 411
Physical Fitness Technology (College-Level) ......................... 413
Physical Fitness Technology (Corporate and Continuing Education) ........................................................ 571
Physical Science (College-Level) ........................................ 414
Physical Therapist Assistant .............................................. 213
Physical Therapy (College-Level) ....................................... 414
Physical Therapy (Corporate and Continuing Education) ....... 571
Physics (College-Level) ..................................................... 416
Plastics (College-Level) ..................................................... 417
Plumbing (College-Level) ................................................. 417
Plumbing (Corporate and Continuing Education) ............... 571
Political Science (College-Level) ........................................ 417

583
Index

Postal Service (Corporate and Continuing Education) ........................................ 572
Pre-College Courses ................................................................................. 273
Pre-College Programs ............................................................................. 67
Pre-Employment Training (Corporate and Continuing Education) .......... 572
Printing (College-Level) ........................................................................ 418
Printing (Corporate and Continuing Education) ....................................... 572
Process Control Instrumentatio (College-Level) ....................................... 418
Process Control Instrumentatio (Corporate and Continuing Education) .. 573
Process Improvement ............................................................................... 265
Production Crafts (Corporate and Continuing Education) ....................... 573
Programs and Services ........................................................................... 36
Psychology (College-Level) ..................................................................... 419
Public Safety for Healthcare Providers ..................................................... 267
Pulp and Paper Technology (Corporate and Continuing Education) ....... 573
R
Race Car Technology (College-Level) ..................................................... 419
Radiography (Corporate and Continuing Education) ............................. 573
Re-Careering Services ............................................................................. 267
Reading (College-Level) .......................................................................... 420
Reading (Corporate and Continuing Education) ....................................... 573
Reading (Pre-College) ............................................................................. 278
Readmission from Suspension .................................................................. 22
Real Estate (College-Level) ....................................................................... 420
Real Estate (Corporate and Continuing Education) .................................... 573
Real Estate Appraisal (College-Level) ..................................................... 420
Real Estate Appraisal (Corporate and Continuing Education) ................. 573
Recreation (Corporate and Continuing Education) .................................... 573
Recreation and Wellness .......................................................................... 267
Refrigeration (Corporate and Continuing Education) .............................. 577
Religion (College-Level) .......................................................................... 421
Repeating Courses ................................................................................... 24
Respiratory Care (College-Level) ............................................................... 421
Respiratory Therapy .................................................................................. 214
S
Safety (Corporate and Continuing Education) .......................................... 577
Selected Topics (College-Level) ................................................................. 423
Self-Supporting Occupational E (Corporate and Continuing Education) .. 577
Seminar (College-Level) .......................................................................... 423
Service-Learning Center .......................................................................... 57
Simulation & Game Development (College-Level) ...................................... 423
Simulation & Game Development (Corporate and Continuing Education) .. 577
Simulation and Game Development ............................................................ 216
Six Sigma Certifications ........................................................................... 268
Small Business Center ............................................................................ 57
Small Business Center ............................................................................ 271
Small Business Centers (SBC) ................................................................. 577
Sociology (College-Level) ......................................................................... 426
Spanish (College-Level) .......................................................................... 427
Spanish (Corporate and Continuing Education) ....................................... 577
Student Academic Integrity Policy ............................................................ 24
Student Code of Conduct ......................................................................... 25
Student Grievance Procedure ................................................................... 25
Student Life ............................................................................................... 57
Student Records (Transcripts) ................................................................. 26
Student Services ....................................................................................... 39
Substance Abuse (College-Level) .............................................................. 428
Surgery (College-Level) ........................................................................... 429
Surgery (Corporate and Continuing Education) ....................................... 578
Surgical Technology ................................................................................ 219
Surveying (College-Level) ...................................................................... 430
Surveying (Corporate and Continuing Education) .................................... 578
Sustainability Technologies ....................................................................... 220
Sustainability Technologies (College-Level) ............................................. 431
T
Taxidermy (Corporate and Continuing Education) ................................... 578
Telecomm & Network Engineering (College-Level) ................................ 431
Telecommunications Technology (Corporate and Continuing Education) .. 578
Textiles (Corporate and Continuing Education) ....................................... 578
Traffic (Corporate and Continuing Education) ........................................ 578
Transcript Evaluation Process ................................................................. 28
Transfer Resource Center ......................................................................... 58
Transportation Technology (College-Level) ............................................. 431
TRIO - Student Support Services .............................................................. 57
Tuition and Fees ...................................................................................... 58
Turfgrass Management (College-Level) ................................................... 432
Turfgrass Management (Corporate and Continuing Education) ............. 578
Turfgrass Management Technology .......................................................... 222
V
Veterans Resources ................................................................................ 60
W
Water and Wastewater Treatment (Corporate and Continuing Education) .. 578
Web Technologies (College-Level) ........................................................... 433
Web Technologies (Corporate and Continuing Education) ..................... 578
<table>
<thead>
<tr>
<th>Program</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welding (College-Level)</td>
<td>435</td>
</tr>
<tr>
<td>Welding (Corporate and Continuing Education)</td>
<td>578</td>
</tr>
<tr>
<td>Welding Technology</td>
<td>224</td>
</tr>
<tr>
<td>Wheels of Learning (College-Level)</td>
<td>437</td>
</tr>
<tr>
<td>Wildland Fire (Corporate and Continuing Education)</td>
<td>578</td>
</tr>
<tr>
<td>Wood Products (Corporate and Continuing Education)</td>
<td>578</td>
</tr>
<tr>
<td>Workplace Basic Skills</td>
<td>268</td>
</tr>
</tbody>
</table>