

Mechanical Engineering Technology

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified fields of mechanical engineering and manufacturing engineering. Mechanical Engineering technicians assist in the design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing service technicians, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

Mechanical Engineering Technology course work includes engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics. Emphasis is placed on the integration of theory and hands-on application of engineering principles. In addition, students study computer applications, critical thinking, planning and problem solving, and oral and written communications.

Graduates of the curriculum 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.

For specific information about potential positions and wages in mechanical engineering technology employment, visit the Central Piedmont Career Coach website.

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 bachelors-level engineering technology 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.
- Placement tests in English and mathematics determine 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 Central Piedmont is accredited by the Engineering Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET).

Notes

The Mechanical Engineering Technology curriculum at Central Piedmont features the use of CAD 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. These courses furnish concentrated study in the practical application of state-of-the-art technological knowledge and skills needed in today's high technology industry.

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 the Mechanical Engineering Technology website or contact the Program Chair at 704.330.2772 ext. 3151.

General Education Requirements

ENG 111	Writing and Inquiry	3.0
ENG 114	Professional Research & Reporting	3.0
or ENG 112	Writing and Research in the Disciplines	
or ENG 113	Literature-Based Research	
COM 110	Introduction to Communication	3.0
or COM 231	Public Speaking	
MAT 171	Precalculus Algebra	4.0
Select 1 of the following:		3.0
ART 111	Art Appreciation	
or ART 114	Art History Survey I	
or ART 115	Art History Survey II	
or DRA 111	Theatre Appreciation	
or HUM 120	Cultural Studies	
or HUM 130	Myth in Human Culture	
or MUS 110	Music Appreciation	
or MUS 112	Introduction to Jazz	
or PHI 215	Philosophical Issues	
or PHI 240	Introduction to Ethics	
or REL 110	World Religions	
Select 1 of the following:		3.0
ECO 251	Principles of Microeconomics	
or ECO 252	Principles of Macroeconomics	
or HIS 111	World Civilizations I	
or HIS 112	World Civilizations II	
or HIS 131	American History I	
or HIS 132	American History II	
or POL 120	American Government	
or PSY 150	General Psychology	
or SOC 210	Introduction to Sociology	

Major Requirements

DFT 154	Intro to Solid Modeling	3.0
EGR 251	Statics	3.0
EGR 252	Strength of Materials	3.0
MEC 161	Manufacturing Processes I	3.0

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MEC 180	Engineering Materials	3.0	ENG 111	Writing and Inquiry	3.0
MEC 265	Fluid Mechanics	3.0	MAT 171	Precalculus Algebra	4.0
PHY 151	College Physics I	4.0	MAT 172	Precalculus Trigonometry	4.0
DFT 151	CAD I (Select 1 of the following:)	3.0	MEC 161	Manufacturing Processes I	3.0
or DFT 170	Engineering Graphics		Total Credits		17
Other Major Requirements:					
ELC 131	Circuit Analysis I	4.0			
MAT 172	Precalculus Trigonometry	4.0			
MAT 271	Calculus I	4.0			
MEC 111	Machine Processes I	3.0			
MEC 275	Engineering Mechanisms	3.0			
PHY 152	College Physics II	4.0			
MEC 260	Fundamentals of Machine Design	3.0			
Select 1 of the following: **Students interested in continuing to UNCC should take CHM 151**					
CHM 151	General Chemistry I				
WBL 111	Work-Based Learning I				
WBL 112	Work-Based Learning I				
ACA 122	College Transfer Success				
Total Credits		71			

No diplomas are offered in Mechanical Engineering Technology.

Mechanical Engineering Certificates (C40320)

Mechanical Engineering Certificate Specialization in Mechanical CAD Operations (C40320-C2)

Major Requirements

DFT 151	CAD I	3.0
DFT 154	Intro to Solid Modeling	3.0
DFT 170	Engineering Graphics	3.0
MEC 161	Manufacturing Processes I	3.0
Total Credits		12

Mechanical Engineering Technology Certificate Specialization in Mechanical Engineering Technology Pathway (C40320-C3)

This program also is available to high school students enrolled in Career and College Promise.

Major Requirements

DFT 151	CAD I	3.0
DFT 154	Intro to Solid Modeling	3.0
MEC 111	Machine Processes I	3.0
MEC 161	Manufacturing Processes I	3.0
Total Credits		12

Mechanical Engineering Technology Certificate Specialization in Academic Preparation for Future Engineers (C40320-C4)

Major Requirements

DFT 151	CAD I	3.0
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