

# 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 or wastewater treatment systems.

Coursework includes communication and computational skills required to support fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional coursework covers 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.

Information on the Civil Engineering Technology program may be found on the Civil Engineering Technology website.

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

## Civil Engineering Technology (A40140)

### Degree Awarded

The Associate in Applied Science Degree - Civil Engineering Technology is awarded by the college upon completing this program. This degree is accepted at some colleges and universities towards the first two years of a 2 + 2 bachelor's-level engineering technology program.

### Admissions

- A high school diploma or equivalent is required.
- Central Piedmont 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.

### Program Accreditation

The Civil Engineering Technology Program at Central Piedmont is accredited by the Engineering Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET).

### Contact Information

Civil Engineering Technology is in the Engineering Technologies Division. For more information, call the Program Chair at 704.330.6892 or visit the Civil Engineering Technologies website.

Note: Students who do not take program-related courses for a one-year period must reenter the program under Catalog requirements in effect at the time of reentry.

### 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	
MAT 171	Precalculus Algebra	4.0
Select 3 credits of the following:		3.0
ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	
HUM 120	Cultural Studies	
DRA 111	Theatre Appreciation	
HUM 130	Myth in Human Culture	
MUS 110	Music Appreciation	
MUS 112	Introduction to Jazz	
PHI 215	Philosophical Issues	
PHI 240	Introduction to Ethics	
REL 110	World Religions	
Select 3 credits of the following:		3.0
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	
PSY 150	General Psychology	
SOC 210	Introduction to Sociology	

### Major Requirements

ACA 122	College Transfer Success	1.0
CEG 111	Introduction to Gis and Gns	4.0
CEG 115	Intro to Tech & Sustainability	3.0
CEG 151	Cad for Engineering Technology	3.0
CEG 210	Construction Materials & Methods	3.0
CEG 211	Hydrology & Erosion Control	3.0
CEG 212	Introduction to Environmental Technology	3.0
CEG 235	Project Management and Estimating	3.0
CIV 111	Soils and Foundations	4.0
EGR 251	Statics	3.0
EGR 252	Strength of Materials	3.0
SRV 110	Surveying I	4.0
SRV 111	Surveying II	4.0
DFT 152	CAD II	3.0
PHY 151	College Physics I	4.0
or PHY 251	General Physics I	
MAT 172	Precalculus Trigonometry	4.0
or MAT 271	Calculus I	
Select 3 Credit Technical Elective:		3.0
MAT 271	Calculus I	
MAT 272	Calculus II	
WBL 112	Work-Based Learning I	
PHY 152	College Physics II	
PHY 252	General Physics II	

CHM 151	General Chemistry I
SRV 210	Surveying III
SRV 220	Surveying Law
SRV 240	Topo/Site Surveying

Total Credits 71

### Civil Engineering Technology - Geomatics Technology (A40140G)

General Education Requirements

ENG 111	Writing and Inquiry	3.0
ENG 112	Writing and Research in the Disciplines	3.0
or ENG 114	Professional Research & Reporting	

MAT 171	Precalculus Algebra	4.0
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Select 3 credits of the following: 3.0

ART 111	Art Appreciation
ART 114	Art History Survey I
ART 115	Art History Survey II
DRA 111	Theatre Appreciation
HUM 120	Cultural Studies
HUM 130	Myth in Human Culture
MUS 110	Music Appreciation
MUS 112	Introduction to Jazz
PHI 215	Philosophical Issues
PHI 240	Introduction to Ethics
REL 110	World Religions

Select 3 credits of the following: 3.0

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
PSY 150	General Psychology
SOC 210	Introduction to Sociology

Major Requirements:

ACA 122	College Transfer Success	1.0
CEG 211	Hydrology & Erosion Control	3.0
SRV 110	Surveying I	4.0
CEG 115	Intro to Tech & Sustainability	3.0
CEG 151	Cad for Engineering Technology	3.0
CEG 111	Introduction to Gis and Gnss	4.0
CEG 212	Introduction to Environmental Technology	3.0
CEG 210	Construction Materials & Methods	3.0
CIV 111	Soils and Foundations	4.0
SRV 111	Surveying II	4.0
EGR 251	Statics	3.0
CEG 235	Project Management and Estimating	3.0
SRV 210	Surveying III	4.0
SRV 240	Topo/Site Surveying	4.0

Select 3 Credit Technical Elective: 3.0

SRV 220	Surveying Law
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EGR 252	Strength of Materials
DFT 152	CAD II
PHY 151	College Physics I
PHY 152	College Physics II
PHY 251	General Physics I
MAT 172	Precalculus Trigonometry
MAT 271	Calculus I
MAT 272	Calculus II
WBL 112	Work-Based Learning I
CHM 151	General Chemistry I

Total Credits 65

### Civil Engineering Technology - Geomatics Technology Diploma (D40140G)

General Education Requirements

ENG 111	Writing and Inquiry	3.0
MAT 171	Precalculus Algebra	4.0

Major Requirements:

ACA 122	College Transfer Success	1.0
CEG 211	Hydrology & Erosion Control	3.0
SRV 110	Surveying I	4.0
CEG 115	Intro to Tech & Sustainability	3.0
CEG 151	Cad for Engineering Technology	3.0
CEG 111	Introduction to Gis and Gnss	4.0
SRV 111	Surveying II	4.0
SRV 210	Surveying III	4.0
SRV 240	Topo/Site Surveying	4.0

Total Credits 37

### There are no certificates offered within this program.

The following is the suggested plan for when to take each course to complete the Associate in Applied Science degree, based on the program requirements of the 2022-2023 catalog. This is only a recommendation — you may take courses in another order upon consultation with your advisor. This plan is based on you starting with college-level math and English courses, starting your program in the fall, and attending full-time. You can also follow this sequence if you attend part-time. Speak with an advisor about the plan and any questions. This program might also offer diplomas or certificates; visit the catalog or contact the program for details.

Civil Engineering Technology suggested course sequence