



# Civil Engineering Technology

Program ENGR.CIV.AAS  
CIP 150201

## Associate in Applied Science Degree

The Civil Engineering Technology program prepares students for employment in field and office positions with architects, engineers, and government agencies as engineering aides; construction, highway or materials technicians; transit operators; or estimators.

### PROGRAM OUTCOMES

- Assist engineers in the preparation of designs for highways and for steel and concrete buildings and bridges;
- Function as a first-line supervisor at a construction site;
- Inspect highways during construction to ensure compliance with applicable specifications;
- Perform route/construction surveys using survey equipment and methods;
- Serve as a laboratory technician in the testing and analysis of various construction materials;
- Serve as a salesperson/technician in supplying construction materials;
- Prepare various construction and civil engineering drawings, both manually and with a computer-based drafting system.

MCCC is located near the central offices of many New Jersey governmental agencies. Graduates have found employment in county, state, and municipal departments of engineering and with many local civil engineering consultants. Cooperative education opportunities may be available.

Admission requires a high school diploma or its equivalent with one year of algebra. Students may study full-time or part-time, but some required courses may be offered only during evening hours.

Graduates wishing to pursue studies leading to a bachelor's degree can transfer into the junior year at many institutions. Temple University, New Jersey Institute of Technology (NJIT), Pennsylvania State University, and Fairleigh Dickinson University are among the institutions accepting Mercer graduates.

### Curriculum

Code	Course (lecture/lab hours)	Credits
<b>FIRST SEMESTER</b>		
CIV 101	Surveying I (2/3)	3
ENT 116	Engineering Graphics (1/2)	2
DRA 190	Introduction to Computer-Aided Drafting (1/2)	2
ENG 101	English Composition I (3/0)	3
MAT —	Mathematics elective <sup>1</sup>	3-4
— —	Science elective <sup>2</sup>	3
<b>SECOND SEMESTER</b>		
CIV 102	Surveying II (2/3)	3
CIV 106	Mechanics (3/0)	3
ENG 112	English Composition II With Speech (3/0)	3
MAT —	Mathematics elective <sup>1</sup>	3-4
— —	Science elective <sup>2</sup>	3
<b>THIRD SEMESTER</b>		
CIV 223	Fluid Mechanics (3/3)	4
CIV 227	Structural Steel Design (2/3)	3
CIV 229	Mechanics of Materials (3/3)	4
— —	General Education elective <sup>3</sup>	3
— —	General Education elective <sup>4</sup>	3
<b>FOURTH SEMESTER</b>		
CIV 228	Reinforced Concrete Design (2/3)	3
CIV 216	Highway Engineering (2/2)	3
HPE 110	Concepts of Health and Fitness (1/2)†	2
IST 102	Computer Concepts with Programming (2/2) OR	3
IST 109	Introduction to Programming (2/2)	
— —	Technical elective <sup>5</sup>	2
— —	General Education elective <sup>4</sup>	3
		64-66

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

<sup>1</sup> Select in consultation with an academic advisor. Students must either have competence in trigonometry or be enrolled in MAT 115 when taking CIV 101. Students planning to earn a bachelor's degree should complete MAT 146 and 151.

<sup>2</sup> This requirement may be satisfied with PHY 111 plus one other Science general education elective. Students planning to earn a bachelor's degree should take PHY 101 and 102 to satisfy the requirement.

<sup>3</sup> Select course from either Social Science or Humanities general education categories.

<sup>4</sup> Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

<sup>5</sup> Select in consultation with an academic advisor.

† CSW 100 is a preferred alternative; HPE 111 is an acceptable alternative.

NOTE: All program listings are subject to periodic updates. Please consult your program advisor, academic division, or [www.mccc.edu/programs\\_degree](http://www.mccc.edu/programs_degree)