August 2009 UPDATE

Civil Engineering Technology

Civil Engineering Technology

Program **A4800**
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.

Successful graduates of the program will be able to:

- 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 microcomputer-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 are 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
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 (3/0)[1]	3-4
—	—	Science elective[2]	3
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 (3/0)[1]	3-4
—	—	Science elective[2]	3
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[3]	3
—	—	General Education elective[4]	3
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[5]	2
—	—	General Education elective[4]	3
			64-66

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

[1] Select mathematics electives in consultation with an advisor. Students must either have competence in trigonometry or be enrolled in MAT 110 or 115 when taking CIV 101. Students who begin their mathematics electives with MAT 110 or lower must also take MAT 135 or 115. Students planning to earn the bachelor's degree should complete MAT 115 and 116 or MAT 146 and 151.

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

[3] Select course from either Social Science or Humanities general education categories.

[4] Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

[5] Select CIV 234 or 281 with advisor approval.

†HPE 111 is an acceptable alternative.

2009-2011

NOTE: All program listings are subject to periodic updates. Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**