MERCER COUNTY COMMUNITY COLLEGE

2024-2025 Academic Year

Civil Engineering Technology

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

B-STEM Division
Business, Science, Technology, Engineering and Math
609.570.3482 admiss@mccc.edu

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.

SEE ALSO:

Engineering Science degree program
Engineering Science certificate program

DEGREE CURRICULUM

2024-2025 Academic Year

ENGR.CIV.AAS
CIP 150201

The course sequence below represents a recommended example of how this degree program can be completed in two years, presuming a Fall Term start and satisfaction of all Developmental Studies (foundation courses) requirements and prerequisites. Actual approaches toward completion depend on each student's anticipated transfer institution, career objectives, or other individual circumstances.

Students are encouraged to meet regularly with an academic advisor or Success Coach to consider options, establish plans, and monitor progress.

Code	Course (lecture/lab hours)	Credits	To Do This Semester
FIRST SEMESTER			
CIV 105	Introduction to Engineering (1/0)	1	✓ Meet with your faculty advisor to complete an academic plan. Make sure you are aware of any course prerequisites you may need to take, and how long it will take to complete your degree. ✓ Use your online tools: Check your MercerMail daily, utilize features of Office 365, and get to know Student Planning. ✓ Take advantage of Learning Centers or Online Tutoring to support your studies and assignments.
DRA 190	Introduction to Computer-Aided Drafting (1/2)	2	
ENG 101	English Composition I (3/0)	3	
MAT 146	Pre-Calculus (4/0)	4	
— —	Science elective • 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.	4	

SECOND SEMESTER		
CIV 101	Surveying I (2/3)	3
CIV 106	Mechanics (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
— —	Science elective	4

- 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.

✓ Transitioning to college can be challenging. Meet with your Success Coach for guidance and support.

✓ Apply for financial aid by May 1.

✓ Contact professors with questions and use their office hours to develop a connection. Talk with them to get the inside scoop on how your profession works.

✓ Be sure to visit the Career Services office to explore jobs, internships, and career information and get help with your resume and other career tools.

✓ Apply for Continuing Student scholarships at www.mccc.edu/m-scholarships.

THIRD SEMESTER		
CIV 223	Fluid Mechanics (3/3)	4
CIV 227	Structural Steel Design (2/3)	3
CIV 229	Mechanics of Materials (3/3)	4
— —	Social Science or Humanities general education elective	3

✓ Keep in contact with each professor and your faculty advisor. Make sure you are on track to graduate on time.

✓ Work with Career Services to formulate plans for after you've earned this degree.

✓ Develop team and leadership skills by getting

			involved in activities and clubs. ✓ Apply for Continuing Student scholarships at www.mccc.edu/m-scholarships. ✓ Manage your stress! Take advantage of the MCCC pool, Fitness Center, free yoga and Zumba. Reach out for counseling or other support if you need it. Your Success Coach can connect you with resources.
FOURTH SEMESTER			
CIV 102	Surveying II (2/3)	3	✓ Get ready to start your career! Begin the job application process. ✓ Discuss your career plans with your faculty advisor. S/he can help you transition successfully.
CIV 216	Highway Engineering (2/2)	3	
CIV 228	Reinforced Concrete Design (2/3)	3	
IST 102	Computer Concepts with Programming (2/2)		
	OR	3	
IST 109	Introduction to Programming (2/2)		
— —	General Education elective	3	
	• Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.		
		60	

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