

Professional Specializations in Civil Engineering

Students who select an area of specialization must take a minimum of nine credit hours from the following technical electives listed under the respective area of specialization. Three additional credit hours may be any 400-level CAE course taken with prior approval of the student's advisor and chair.

Civil-Environmental Engineering

The department offers a significant specialization in environmental engineering that involves technical electives and substitutions for required courses. Those interested should consult with the department.

Construction Engineering and Management

- CAE 471 Construction Planning and Scheduling
- CAE 472 Construction Site Operation
- CAE 473 Construction Project Administration

Geotechnical Engineering

- CAE 415 Pavement Design, Construction, and Maintenance
- CAE 442 Finite Element Methods in Framed Structures
- CAE 486 Soil and Site Improvement

Structural Engineering

- CAE 408 Bridge and Structural Design
- CAE 420 Dynamics of Structures
- CAE 430 Probability concepts in Civil Engineering
- CAE 435 Experimental Analysis of Structures
- CAE 442 Finite Elements Methods in Framed Structures

Transportation Engineering

- CAE 412 Traffic Engineering Studies and Design
- CAE 415 Pavement Design, Construction and Management
- CAE 416 Facility Design of Transportation Systems
- CAE 417 Railroad Engineering Studies and Design
- CAE 430 Probability Concepts in Civil Engineering