MS Civil Engineering – General

This course plan serves as an example of the program. Program requirements and course offerings are subject to change.

The MS Civil Engineering - General Program is designed to provide students with knowledge from a few disciplines within civil engineering. The program requires students to complete a minimum of 3 units from each of the following areas: Environmental Engineering & Water Resources, Construction & Transportation, Geotechnical Engineering, and Structural Engineering.

<table>
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<th>Fall 2024</th>
<th>Spring 2024</th>
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| ● Construction & Transportation (4 units)  
● Geotechnical Engineering (4 units) | ● Environmental Engineering & Water Resources (4 units)  
● Structural Engineering (4 units) |

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| ● Approved Elective (4 units)  
● Approved Elective (4 units) | ● Approved Elective (4 units) |

Approved Electives (12 units)

Environmental Engineering & Water Resource

● CE 451: Water Resources and Coastal Engineering (4 units)  
● CE 465: Water Supply & Sewage System Design (4 units)  
● CE 476: Design of Hydraulic Systems (4 unit)  
● CE 510: Groundwater Management (3 units)  
● CE 516: Geohydrology (4 units)  
● CE 520: Ocean and Coastal Engineering (4 units)  
● ENE 505: Energy and the Environment (3 units)  
● ENE 535: Applied Air Quality Management (4 units)

Geotechnical Engineering

● CE 482: Subsurface Foundation Design (4 units)  
● CE 533: Geotechnical Earthquake Engineering (4 units)  
● CE 534: Retaining Structures & Slope Stability (3 units)
Construction & Transportation

- CE 462: Construction Methods and Equipment (2 units)
- CE 471: Principles of Transportation Engineering (4 units)
- CE 501: Architecture, Engineering and Construction Practices (4 units)
- CE 569: Project Controls (4 units)
- CE 573: Advanced Technologies in AEC Practices (4 units)
- CE 579: Introduction to Transportation Planning Law (2 units)
- CE 583: Design of Transportation Facilities (4 units)
- CE 585: Traffic Engineering and Control (3 units)

Structural Engineering

- CE 537: Advanced Reinforced Concrete (4 units)
- CE 539: Advanced Steel Structures (4 units)