

**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.

<p>Semester 1</p> <ul style="list-style-type: none"> <li>● Construction &amp; Transportation (4 units)</li> <li>● Geotechnical Engineering (4 units)</li> </ul>	<p>Semester 2</p> <ul style="list-style-type: none"> <li>● Environmental Engineering &amp; Water Resources (4 units)</li> <li>● Structural Engineering (4 units)</li> </ul>
<p>Semester 3</p> <ul style="list-style-type: none"> <li>● Approved Elective (4 units)</li> <li>● Approved Elective (4 units)</li> </ul>	<p>Semester 4</p> <ul style="list-style-type: none"> <li>● Approved Elective (4 units)</li> </ul>

**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)