MS Civil Engineering – Emerging Technologies in Construction

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

<table>
<thead>
<tr>
<th>Fall 2024</th>
<th>Spring 2025</th>
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<tbody>
<tr>
<td>Core Course (4 units)</td>
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<tr>
<td>Core Course (4 units)</td>
<td>Approved Elective (4 units)</td>
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<tr>
<th>Fall 2025</th>
<th>Spring 2026</th>
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<tbody>
<tr>
<td>Core Course (2 units)</td>
<td>Approved Elective (4 units)</td>
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<td>Core Course (2 units)</td>
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<tr>
<td>Approved Electives (4 units)</td>
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</tbody>
</table>

Core Courses (16 units)

- CE 470: Building Information Modeling and Integrated Practice (4 units)
- CE 505: Data Management (2 units)
- CE 568: Fundamental Concepts of Computing and Programming in Civil and Environmental Engineering (2 units)
- CE 573: Advanced Technologies in AEC Practices (4 units)
- CE 578: Technology-Enabled Architecture, Engineering and Construction (4 units)

Approved Electives (12 units)

- CE 501: Architecture, Engineering and Construction Practices (4 units)
- CE 502: Construction Business (4 units)
- CE 526: Engineering Mathematical Methods (4 units)
- CE 531: Quantifying Uncertainty in Civil Environmental Engineering (2 units)
- CE 532: Data Analytics in Civil Engineering (2 units)
- CE 534: Design of Earth Structures (3 units)
- CE 564: Construction Planning and Preconstruction (4 units)
- CE 569: Project Controls (4 units)
- CE 574: Construction Means and Methods (4 units)
- CE 575: Sustainability, Well-Being and Innovation in the Built Environment (4 units)
- CE 576: Invention and Technology Development (3 units)
- CE 583: Design of Transportation Facilities (4 units)
- CE 584: Intelligent Transportation Systems (4 units)

Additional electives may be approved by the program advisor.