

MSCE – Advanced Design & Construction Technology Sample Course Plan

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

<p>Fall 2024</p> <ul style="list-style-type: none"> ● Required Course (4 units) ● Required Course (4 units) 	<p>Spring 2024</p> <ul style="list-style-type: none"> ● Required Course (4 units) ● Elective (4 units)
<p>Fall 2025</p> <ul style="list-style-type: none"> ● Required Course (2 units) ● Required Course (2 units) ● Elective (4 units) 	<p>Spring 2025</p> <ul style="list-style-type: none"> ● Required Course (4 units)

Required Courses (20 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)
- ENE 505: Energy and the Environment (4 units)

Electives (8 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.