

MS Civil Engineering – Structural Engineering

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

<p>Semester 1</p> <ul style="list-style-type: none"> ● Core Course (2 units) ● Core Course (4 units) ● Approved Elective (2 units) 	<p>Semester 2</p> <ul style="list-style-type: none"> ● Core Course (2 units) ● Core Course (4 units) ● Approved Elective (2 units)
<p>Semester 3</p> <ul style="list-style-type: none"> ● Approved Elective (4 units) ● Approved Elective (4 units) 	<p>Semester 4</p> <ul style="list-style-type: none"> ● Approved Elective (4 units)

Core Courses (12 units)

- CE 507: Mechanics of Solids (4 units)
- CE 531: Quantifying Uncertainty in Civil and Environmental Engineering (2 units)
- CE 532: Data Analytics in Engineering (2 units)
- CE 541: Dynamics of Structures (4 units)

Approved Electives (16 units)

- CE 501: Architecture, Engineering and Construction Practices (4 units)
- CE 525: Engineering Mathematical Analysis (3 units)
- CE 526: Engineering Mathematical Methods (4 units)
- CE 528: Seismic Analysis and Design of Reinforced Concrete Bridges (3 units)
- CE 529: Finite Element Analysis (4 units)
- CE 533: Geotechnical Earthquake Engineering (4 units)
- CE 534: Retaining Structures & Slope Stability (4 units)
- CE 535: Earthquake Engineering: Strong Motion Studies (2 units)
- CE 537: Advanced Reinforced Concrete (4 units)
- CE 538: Prestressed Concrete (2 units)
- CE 539: Advanced Steel Structures (4 units)
- CE 542: Theory of Plates and Shells (2 units)
- CE 543: Structural Instability & Failure (4 units)
- CE 546: Structural Mechanics of Composite Materials (2 units)
- CE 540: Tall and Special Structures (2 units)
- CE 547: Earthquake Engineering - Response of Structural (4 units)
- CE 548: Timber and Masonry Design (4 units)
- CE 647: Multiscale Methods in Mechanics (3 units)
- CE 599: Structural Identification (4 units)
- CE 599: Case Studies for Probabilistic Modeling (2 units)
- CE 599: Soft Materials and 3D Printing (4 units)