Requirements for the Master of Science Degree in Structural Engineering

General Requirement for Admission to the Program:
1. Satisfaction of all requirements for admission to the University (see Catalog section regarding Graduate Programs).
2. A bachelor's degree in Engineering, or in an allied field with some equivalency to Engineering, from an accredited university or college.
3. Approval by the College of Engineering and Computer Science and the Department.

For Advancement to Classified Graduate Status:
1. Satisfaction of University requirements for Classified status (See Catalog section regarding Graduate Programs).
2. Completion of all requirements noted on individual admissions documents.
3. Submit tentative program of study to the CEAM graduate coordinator.
4. Approval by the Department Graduate Coordinator.

For The Degree:
1. Satisfaction of University requirements for the M.S. Degree (see Catalog section regarding Graduate Programs).
2. Completion of 30-33 units under the Thesis, Project or Comprehensive Examination Plan as follows:

A. Thesis Plan (30 units)
i. 24 units of course work applicable to the M.S. Degree, of which at least 15 units are in Engineering courses at the 500-level or above.
ii. An additional 6 units of CE 698 (Thesis) and successful defense of Thesis.

B. Project (30 units)
i. 27 units of course work applicable to the M.S. Degree, of which at least 18 units are in Engineering courses at the 500-level or above.
ii. An additional 3 units of CE 698 (Graduate Project) culminating in a comprehensive report.

C. Comprehensive Exam Plan (33 units)
i. 30 units of course work applicable to the M.S. Degree, of which at least 21 units are in Engineering courses at the 500-level or above.
ii. An additional 3 units of CE 697 Directed Comprehensive Study.

Special Requirements
1. Students entering the program are expected to have completed Soil Mechanics (CE 426) and Structures I (CE 335), Reinforced Concrete Design (CE 438) and Structural Steel Design (CE 439). Admitted students who have not completed such courses as part of an undergraduate program must satisfactorily complete them prior to continuing in the program. These courses cannot be applied toward the formal degree program of study.

2. This program is intended primarily for students holding a B.S. in Civil Engineering or in a closely related field. Prospective students whose undergraduate degree is not in a closely related field should contact the Department in order to discuss additional prerequisite courses with a faculty advisor.

3. The total number of 400-level units in the formal program of study for students pursuing the Thesis, Project or Comprehensive Examination Plans may not exceed 9 units.

Required Courses (30-33 units)

1. Culminating Experience (3-6 units)

CE 697 Comprehensive Exam (3)

or CE 698 Graduate Project (3)

or Graduate Thesis (6)

2. Required Courses (0-7 units)

AM 410 Vibration Analysis (3)

CE 536/L Structures II and Lab (3/1)

Note: If AM 410 and CE 536/L or equivalent were completed as part of an undergraduate degree program, additional units must be included in the graduate program. Please consult with Graduate Advisor.

3. Additional courses.

Remaining courses selected from the following list to complete the required units consistent with the culminating experience selected.

CE 526 Geotechnical Foundation Design (3)

CE 537 Timber and Masonry (4)

CE 636 Structural Dynamics (3)

CE 638 Advanced Reinforced Concrete Design (3)

CE 639 Advanced Structural Steel Design (3)

CE 640 Advanced Analysis Methods (3)

CE 641 Earthquake Engineering (3)

CE 642/L Applied Finite Elements (4)

CE 648 Precast And Prestressed Concrete Design (3)

Note: If additional units are required to complete the degree as a consequence of taking some of the above courses in a undergraduate program, other courses can be selected with the approval of an advisor or the Graduate Coordinator.