



COLLEGE OF ENGINEERING
UNIVERSITY OF WISCONSIN-MADISON

Department: Civil and Environmental Engineering

Form: Proposed Option C, MS Program Plan for students without engineering Bachelor’s degrees

Name: _____ Student ID #: _____

CEE Area of Study: _____ Advisor: _____

Master’s Option (i.e., A. Thesis or Research or B. Independent Study): _____

Term and Year Admitted to Option C, M.S. Program: _____

Previous Degrees (i.e., Degree(s) and Major(s)): _____

Institution Attended: _____ Date Earned: _____

**The exact number of deficiency courses and credits completed before and after admission will be determined by the faculty advisor. All pre-requisite courses must be taken for a letter grade.

Deficiency Requirements for Option C, MS Programs in CEE: No Graduate Credit Awarded for the Completion of These Courses			
Requirement	Term and Year	Institution	Grade
Math/Statistics Requirements			
Math 221: Calculus & Analytic Geometry (5 cr.) or equivalent			
Math 222: Calculus & Analytic Geometry (5 cr.) or equivalent			
Math 234: Calculus-Functions of Several Variables (3 cr.) or equivalent			
Math 319: Techniques in Ordinary Differential Equations (3 cr.) or equivalent			
Statistics 224: Introductory Statistics for Engineers (3 cr.) or equivalent			
Natural Sciences Requirements			
EMA 201: Statics (3 cr.) or equivalent			
EMA 202: Dynamics (3 cr.) or equivalent			
Physics 202: General Physics (5 cr.) or equivalent			
Chemistry Requirement			
Chemistry 109: Advanced General Chemistry (5 cr.) or equivalent			
Civil and Environmental Engineering Requirements (Area Specific)			
Environmental Engineering:			
1) CEE 310: Fluid Mechanics (3 cr.) or equivalent			
2) CEE 311: Hydrosience (3 cr.) or equivalent			
3) CEE 320: Environmental Engineering (3 cr.) or equivalent			
Geoengineering:			
1) CEE 330: Soil Mechanics (4 cr.) or equivalent			
Materials:			
1) CEE 395: Materials for Constructed Facilities (3 cr.) or equivalent			
Structural Engineering:			
1) EMA 303: Mechanics of Materials (3 cr.) or equivalent			
2) CEE 340: Structural Analysis (4 cr.) or equivalent			
3) CEE 395: Materials for Constructed Facilities (3 cr.) or equivalent			
Transportation Engineering / Geo-Spatial Information:			
1) CEE 370: Transportation Engineering (3 cr.) or equivalent			
Water Resources / Environmental Fluid Mechanics:			
1) CEE 310: Fluid Mechanics (3 cr.) or equivalent			
2) CEE 311: Hydrosience (3 cr.) or equivalent			
3) CEE 320: Environmental Engineering (3 cr.) or equivalent			
4) CS 302: Introduction to Programming (3 cr.) or equivalent			

The courses entered into the following two tables comprise the Option C, MS program within CEE. Students must complete a minimum of 30 graduate level credits (300 and higher) within CEE graduate-level credits. In addition to the 30 credit minimum requirement, students will meet with their faculty advisor to determine the courses and total credits required to fulfill the deficiency requirements.

CIVIL AND ENVIRONMENTAL ENGINEERING Minimum Degree Requirements and Satisfactory Progress
http://grad.wisc.edu/catalog/degrees_cee_criteria.htm

Deficiency Requirements for Option C, MS Programs in CEE: Graduate Credit Awarded for the Completion of These Courses						
Civil and Environmental Engineering Requirements (Area Specific)	Term and Year	Institution	Credits	Grade	MS Credits	CEE Credits
Construction Engineering and Management: 1) CEE 491: Legal Aspects of Engineering (3 cr.) or equivalent 2) CEE 492: Integrated Project Estimating and Scheduling (3 cr.) or equivalent 3) CEE 498: Construction Project Management (3 cr.) or equivalent						
Environmental Engineering: 1) 3 cr. CEE Design Course: CEE 426: Design of Wastewater Treatment Plants (3 cr.), or CEE 427: Solid and Hazardous Waste Engineering (3 cr.), or CEE 428: Water Treatment Plant Design (3 cr.), or CEE 522: Hazardous Waste Management (3 cr.), or equivalent						
Geoengineering: Geotechnics: 1) CEE 310: Fluid Mechanics (3 cr.) or equivalent 2) EMA 303: Mechanics of Materials (3 cr.) or equivalent Geoenvironmental: 1) CEE 310: Fluid Mechanics (3 cr.) or equivalent 2) CEE 320: Environmental Engineering (3 cr.) or equivalent						
Structural Engineering: 1) CEE 330: Soil Mechanics (4 cr.) or equivalent 2) CEE 445: Steel Structures (3 cr.) or equivalent 3) CEE 447: Concrete Structures (3 cr.) or equivalent						
Transportation Engineering / Geo-Spatial Information: 1) CEE 571: Urban Transportation Planning (3 cr.) 2) CEE 573: Geometric Design of Transport Facilities (3 cr.) 3) CEE 574: Traffic Control (3 cr.) 4) CEE 579: Seminar-Transportation Engineering (1 cr.)						

 Advisor Signature

 Date

 Associate Chair for Graduate Programs Signature

 Date

Civil & Environmental Engineering: Master's Degree (M.S.) Requirements & Graduate Curriculum Form

Minimum Degree Requirements and Satisfactory Progress: http://grad.wisc.edu/catalog/degrees_cee_criteria.htm

Civil and Environmental Engineering includes students with a variety of areas of intended specialization, there are no specific courses that are uniformly required for graduate degrees in Civil & Environmental Engineering. The student's faculty advisor along with two additional Civil & Environmental Engineering faculty form the student's Course Selection Committee and with the student, develop a curriculum in the student's area of interest. *Approval of the courses should occur during the student's first year of study, preferably during the first semester.*

Master's degree candidates choose from three programs for their programs of study:

- **Option A - Thesis Option:** Option A requires a **minimum of 30 credits** of graduate work, including **at least 18 credits** of graduate-level coursework, and **at least 6 credits** of thesis work (CEE 790 - Master's Research or Thesis). At least 9 credits of the graduate-level coursework (300 level and above) must be CEE courses. A faculty committee will conduct a final examination on the thesis research. Students who wish to do advanced work and research in a well-defined area of specialization are encouraged to pursue this program.
- **Option B - Advanced Independent Study Option:** Option B requires a **minimum of 30 credits** of graduate work, including **at least 21 credits** of graduate-level coursework, and **at least 3 credits** of advanced independent study (CEE 790 - Master's Research or Thesis or CEE 999 - Advanced Independent Study). At least 9 credits of the graduate-level coursework (300 level and above) must be CEE courses¹. A required written report based on the student's advanced independent study project does not have to meet UW-Madison Graduate School requirements for a thesis, but has to show independent thinking by the student. A faculty committee will review and approve the course work and final report. A final examination is not required but may be requested by the faculty committee.
- **Program C: An option for students who do not have a bachelor's degree from an ABET-accredited engineering program or from a recognized international.** In addition to the total deficiency credit requirement, Option C requires a **minimum of 30 credits** of graduate work. Students can select either a Thesis Option or Advanced Independent Study Option, consistent with the requirements of Option A or Option B described above, to complete the non-deficiency requirements of Option C. For example, **a student with 10 credits of deficiency requirements will require a total of 40 credits to complete their degree, 10 deficiency credits and 30 graduate credits.** Students should meet with their faculty advisor to determine which option is most appropriate for their degree plan. Deficiency credits cannot be applied to fulfill the 30 credit degree requirement. Selection of a program depends on the candidate's educational objectives.

Students must achieve a 3.0 grade point average or higher in all graduate work. Credit for courses in which the students earned less than a B cannot be counted toward the graduate degree without approval of the student's Course Selection Committee.

50% Graduate Coursework Requirement: At least 50% of credits applied toward the graduate degree credit requirement must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's [Course Guide](#). Courses numbered 700 and above are automatically counted toward graduate level minimum requirements.

****If a student desires to modify their course plan at a later date, he or she should submit a new course approval form signed by their Advisor/Committee.**

