



BS/MS Joint Degree Program

The Department of Civil and Environmental Engineering

cee@engineering.uiowa.edu

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1. Introduction

In an effort to serve the most able undergraduate engineering students at The University of Iowa, the Department of Civil and Environmental Engineering (CEE) and the College of Engineering (CoE) support a combined bachelor of science and master of science degree program (BS/MS). Students admitted to this program will be allowed to: apply three engineering courses (9 s.h.) towards both the B.S. and M.S. degree requirements; take an additional 3 s.h. of graduate coursework before completing their BS; attend and participate in the departmental graduate seminar; and may begin to work on master's thesis or project research with a CEE faculty member starting as early as the summer following the junior year of undergraduate studies. The intention of the program is to allow an early entrance to graduate school for our most able students.

2. Eligibility

To be eligible for the BS/MS program, students must:

- complete at least 80 semester credit hours towards their BS degree from the College of Engineering;
- earn a minimum cumulative GPA of 3.25; and
- identify a CEE faculty member as their potential graduate advisor.

3. Admissions and Acceptance:

<http://www.uiowa.edu/admissions/graduate/apply/index.html>

Students are encouraged to begin the online application in the spring of the junior year. The complete application for the BS/MS program, *including final GRE scores*, must be received by the Office of Graduate Admissions before the beginning of the senior year (summer or winter break). No official admission to the joint program will be made without the GRE scores. Admission to the M.S. program is subject to review by the CEE Director of Graduate Studies.

4. Graduation Requirements:

<http://www.cee.engineering.uiowa.edu/gradprogram.php>

Successful completion of the graduate degree requires advice and approval from the student's graduate advisor.

A student in the joint BS/MS degree program must complete all the graduate requirements of both the undergraduate program and the graduate program in CEE. However, 9 s.h. of 100 level courses may be counted toward both the BS and MS degrees and an additional 3 s.h. of graduate courses may be taken before BS graduation. Thirty or thirty-three semester hours (30 or 33 s.h.) of graduate courses are required, depending on the area of study. Students entering the BS/MS

degree program are required to enroll in a graduate seminar each semester (53:191; 53:192; 53:193 or 53:194) and may be excused from Professional Seminar (53:091).

Students in the combined BS/MS program are required to produce and defend a scholarly product in the form of a manuscript submitted to a peer-reviewed scientific archival journal, a completed design report, or an M.S. thesis. The research work associated with this product usually requires 10-20 hours per week throughout the years of enrollment.

The MS must be completed within 2 years from completing the BS degree. If a student withdraws from the joint BS/MS joint degree program, or does not complete the MS two years after completing the BS, no graduate credit will be given for any portion of the semester hours eligible for joint counting that have been completed. The hours will be applied as undergraduate electives.

5. Tuition and Fees

Tuition is assessed at the undergraduate level for seven semesters (112 s.h.) of undergraduate study. The final semester, tuition will be assessed at the graduate level. Thereafter, tuition will be assessed at the graduate level.

Research and/or Teaching Assistantships and other forms of financial aid are not routinely provided to BS/MS students. However, students are encouraged to discuss this with their graduate advisor.

6. Example Plans of Study: CEE BS/ CEE MS

The following tables are examples of coursework by former BS/MS graduates of CEE. Graduate courses often change. The current offering of graduate required and elective courses may not include courses in the tables below. See ISIS.uiowa.edu for up to date information.

Table 1. Example curriculum for a BS/MS degree in environmental engineering.

BS s.h.	MS s.h.	Course Number	Course Name
3	3	53:159	Air Pollution Control Technology
3	3	53:156	Physical-Chemical Processes
3	3	53:102	Groundwater
	3	53:154	Environmental Microbiology
	3	53:185	International Perspectives in Engineering
	3	53:151	Biological Treatment Processes
	3	53:153	Environmental Chemistry Laboratory
	3	12:136	Soil Geomorphology
	3	53:103	Water Quality
	3	53:199	MS Research
	3	53:199	MS Research
	0	53:192	EES Grad Seminar each semester

Table 2. Example curriculum for a BS/MS degree in structures, mechanics, and materials.

BS s.h.	MS s.h.	Course Number	Course Name
3	3	53:139	Foundations of Structures
3	3	53:140	Intermed Mechanics of Deformable Bodies
3	3	53:190	Research Project
	3	53:241	Continuum Mechanics & Elasticity
	3	53:111	Numerical Calculations
	3	58:154	Intermed Kinematics & Dynamics
	3	53:112	Engineering Design Optimization
	3	53:115	Computer Aided Engineering
	3	53:132	Fundamentals of Vibrations
	3	53:148	Fatigue /Durability in Design
	0	53:191	SMM Grad Seminar each semester

Table 3. Example curriculum for a BS/MS degree in hydraulics and water resources.

BS s.h.	MS s.h.	Course Number	Course Name
3	3	53:157	Environmental Engineering Design
3	3	53:174	Water Resources Design
3	3	53:169	Intermediate Mechanics of Fluids
	3	53:173	Mechanics of Sediment Transport
	3	53:170	Flow in Open Channels
	3	53:173	Alluvial Channel Hydraulics
	3	44:106	Foundations of GIS
	3	22S:105	Statistical Methods and Computing
	3	12:238	Process Geomorphology
	3	53:199	MS Research
	3	53:199	MS Research
	0	53:193	HWR Grad Seminar each semester