

Civil and Environmental Engineering, MS

Academic Plans

Sample Plans of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Civil and Environmental Engineering, MS

- Environmental Engineering Subprogram [p. 1]
- Environmental Science Subprogram [p. 1]
- Hydraulics Subprogram [p. 2]
- Structures, Mechanics and Materials Subprogram [p. 2]
- Sustainable Water Development Subprogram [p. 2]
- Transportation Subprogram [p. 3]
- Water Resources Subprogram [p. 3]

Environmental Engineering Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0
Hours		16
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0

Final Exam ^e	
Hours	15
Total Hours	31

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.

c Must be completed during first semester.

d Required every semester.

e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Environmental Science Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0
Hours		16
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0
Hours		15
Final Exam ^e		
Hours		15
Total Hours		31

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.

c Must be completed during first semester.

^d Required every semester.

^e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Hydraulics Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0
Hours		16
Spring		
CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0
Hours		15
Final Exam ^e		
Hours		15
Total Hours		31

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.

c Must be completed during first semester.

d Required every semester.

e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Structures, Mechanics and Materials Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; more information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
CEE Core course ^b		3
CEE Core course ^b		3
CEE Elective course ^c		3
CEE Elective course ^c		3
CEE:5990	Structural Engineering Practicum A	2
ENGR:7270	Engineering Ethics ^d	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation ^e	0
Hours		15
Spring		
CEE Core course ^b		3
CEE Elective course ^c		3
CEE Elective course ^c		3
CEE Elective course ^c		3
CEE Elective course ^c		3
CEE:5991	Structural Engineering Practicum B	1
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation ^e	0
Hours		16
Final Exam ^f		
Hours		16
Total Hours		31

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Complete three courses from CEE:4512, CEE:5513, CEE:5540, CEE:4533, CEE:5179, CEE:5310.

c Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.

d Must be completed during first semester.

e Required every semester.

f Successful completion of all degree requirements.

Sustainable Water Development Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0

First Year**Fall**

CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0

Hours **16**

Spring

CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0

Final Exam^e

Hours **15**

Total Hours **31**

- a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.
- c Must be completed during first semester.
- d Required every semester.
- e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.

Transportation Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. must be graduate level coursework; more information is included in the General Catalog and on department website. ^a		
Hours		0
First Year		
Fall		
CEE:5310	Informatics for Sustainable Systems	3
CEE:4560	Pavement Engineering	3
CEE:5678	Application Simulation to Transportation	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1

CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation ^d	0
----------	---	---

Hours **16**

Spring

CEE:4730	Transportation Infrastructure Construction and Management	3
STAT:4100 or STAT:4200	Statistical Inference I or Statistical Methods and Computing	3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE Elective course ^b		3
CEE:5098	Graduate Seminar in Structures, Materials, Mechanics, and Transportation ^d	0

Final Exam^e

Hours **15**

Total Hours **31**

- a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.
- b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and department website for specifics.
- c Must be completed during first semester.
- d Required every semester.
- e Successful completion of all degree requirements.

Water Resources Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
31 s.h. of graduate level coursework must be completed; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. ^a		
Hours		0

First Year**Fall**

CEE:5380	Fluid Flows in Environmental Systems	3
CEE:5410	Politics and Economics of the Food, Energy, Water Nexus	3
CEE:5440	Foundations of Environmental Chemistry and Microbiology	3
CEE Elective course ^b		3
CEE Elective course ^b		3
ENGR:7270	Engineering Ethics ^c	1
CEE:5096	Water, Energy, and Food Nexus Seminar ^d	0

Hours **16**

Spring

CEE:5310	Informatics for Sustainable Systems	3
CEE:5350	Watershed Hydrology and Ecosystem Processes	3
CEE Elective course ^b		3

CEE Elective course ^b	3
CEE Elective course ^b	3
CEE:5096 Water, Energy, and Food Nexus Seminar ^d	0
Final Exam ^e	
Hours	15
Total Hours	31

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Work with academic advisor to determine elective graduate coursework and sequence. See General Catalog and CEE website for specifics.

c Must be completed during first semester.

d Required every semester.

e Final exam is required for some program areas. Refer to Graduate Program Resources on the CEE website for details.