

ENVIRONMENTAL ENGINEERING

Department of Civil and Environmental Engineering



Sample Four-Year Plan

First Year

1st Semester		sh	2nd Semester		sh
ALL	RHET:1030 Rhetoric	4	ALL	MATH:1560 Math II: Multivariable Calculus <i>(P: MATH:1550)</i>	4
F/S	MATH:1550 Math I: Single Variable Calculus <i>(P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)</i>	4	ALL	MATH:2550 Math III: Matrix Algebra <i>(P: MATH:1550)</i>	2
ALL	CHEM:1110 Principles of Chemistry I <i>(P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)</i>	4	ALL	CHEM:1120 Principles of Chemistry II <i>(P: CHEM:1110 with a minimum grade of C-)</i>	4
F	ENGR:1100 Intro to Engineering Problem Solving	3	ALL	PHYS:1611 Introductory Physics I / Lab <i>(C: MATH:1550)</i>	4
F	ENGR:1000 Engineering Success for First-Year Students <i>(First semester standing)</i>	1	F/S	ENGR:1300 Intro to Engineering Computing <i>(C: MATH:1550)</i>	3
			S	CEE:1010 Introduction to Careers in Env. Engineering	0
		16			17

Second Year

3rd Semester		sh	4th Semester		sh
ALL	MATH:2560 Math IV: Differential Equations <i>(P: MATH:1560 & MATH:2550)</i>	3	ALL	General Education Course	3
ALL	CHEM:2210 Organic Chemistry I (no lab required) <i>(P: CHEM:1120 with a minimum grade of C-)</i>	3	ALL	BIOL:1411 Foundations of Biology <i>(P: CHEM:1110)</i>	4
ALL	ENGR:2110 Statics <i>(P: MATH:1550; C: MATH:1560 & PHYS:1611)</i>	2	ALL*	ENGR:2710 Dynamics <i>(P: ENGR:2110 & MATH:1550)</i>	3
ALL	ENGR:2130 Thermodynamics <i>(P: CHEM:1110 & PHYS:1611; C: MATH:1560)</i>	3	S	CEE:3155 Principles of Environmental Engr (with Lab) <i>(P: CHEM:1110)</i>	4
ALL	STAT:2020 Probability & Statistics For Engr & Phys Sci <i>(P: MATH:1560)</i>	3	S	CEE:3002 Technical Communication in CEE <i>(sophomore standing)</i>	1
ALL	CEE:1030 Intro to Earth Science (no lab required)	3	S	CEE:2010 Professional Practice and Ethics	1
		17			16

Third Year

5th Semester		sh	6th Semester		sh
ALL	General Education Course	3	ALL	General Education Course	3
F/S	ENGR:2510 Fluid Mechanics <i>(P: MATH:2560 & ENGR:2710; C: ENGR:2130)</i>	4	ALL*	ENGR:2720 Materials Science <i>(P: CHEM:1110; C: MATH:1550)</i>	3
F	CEE:4150 Environmental Chemistry <i>(P: CHEM:1120)</i>	3	S	CEE:3371 Principles of Hydraulics and Hydrology <i>(P: ENGR:2510)</i>	3
F	CEE:4158 Solid and Hazardous Wastes	3	S	CEE:3430 Water Treatment (with Lab) <i>(P: ENGR:2510 & CEE:3155)</i>	4
ALL	Elective: Focus Area, Minor, Certificate, etc.	3	S	CEE:4159 Air Pollution Control Technology	3
F	CEE:3001 Leadership Skills for Engineers	1			
		17			16

Fourth Year

7th Semester		sh	8th Semester		sh
ALL	General Education Course	3	ALL	General Education Course	3
F	CEE:4102 Groundwater	3	F/S	CEE:4850 Project Design & Management in CEE <i>(P: final semester; C: CEE:3003)</i>	3
F	CEE:4157 Environmental Engineering Design <i>(P: CEE:3155)</i>	3	ALL	Elective: Focus Area, Minor, Certificate, etc.	3
F	CEE:4374 Water Resources Design <i>(P: CEE:3371)</i>	3	ALL	Elective: Focus Area, Minor, Certificate, etc.	3
ALL	Elective: Focus Area, Minor, Certificate, etc.	3	ALL	Elective: Focus Area, Minor, Certificate, etc.	3
F	CEE:3003 Project Management Skills <i>(senior standing)</i>	1			
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ENVIRONMENTAL ENGINEERING

Engineering Student Development Center
Academic and Career Advising
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CAREERS

- **Air Quality Engineer:** Inspects, analyzes, and quantifies levels of pollution and their environmental impact. Designs and assesses the effectiveness of environmental regulatory programs to manage health risks to the environment
- **Environmental Analyst:** Collects, studies, and analyzes data to propose actions and policies to create less harmful and cleaner interactions with the environment. Evaluates risks posed by residue from past uses of properties. Predicts and evaluates the environmental impacts of proposed projects.
- **Environmental Engineer:** Design and implement new processes to improve sustainability and to mitigate environmental impact
- **Hydraulic and Hydrologic Engineer:** Predicts the runoff volume, rate, and extent of flow from various weather events. Designs water transport and storage systems.
- **Process Engineer:** Contributes to the design or modification of manufacturing processes to minimize impacts to the environment and use of natural resources.
- **Regulator:** Works for a local, state, or federal agency to review proposed projects for compliance with various codes and standards.
- **Water/wastewater Engineer:** Improves both the environment and economy by helping communities and businesses dispose of waste without polluting natural water sources.

*Some of these positions may require an advanced degree.

SPECIALIZATIONS WITHIN THE FIELD

- Air
- Consulting
- Containment
- Drinking water
- Environmental Law
- Industrial hygiene
- Pollution control
- Public Health agencies
- Public works
- Remediation
- Soil
- State and local government
- Sustainability
- Urban Planning
- Waste management
- Waste water
- Water quality / treatment

EMPLOYERS

- Andrews Engineering
- Arc Design Resources, Inc
- Barr Engineering
- Burns McDonnell
- Chastain Associates, LLC
- Collins Engineers
- Environmental Consulting & Tech, Inc
- Gilbane Building Co
- Geosyntec Consultants
- Geotech Inc
- HBK Engineering
- HR Green
- MMS Consultants
- Oneida Total Integrated Enterprises
- Shive Hattery
- Shoemaker & Haaland Prof Engineers
- Snyder Associates
- Stanley Consultants

<https://careers.uiowa.edu/post-graduation-data#employment-report>