

B.S. in Environmental Engineering

Catalog Year 2025-26

Below is the *advised sequence* of courses for this degree program as of 1/15/2025.

Official degree requirements and course prerequisites are found in the University General Catalog; prerequisites are subject to change.

Course Number and Title	Units	Prerequisites/Enrollment Requirements
1st Semester		
MATH 122A/B or MATH 125 Calculus I with Applications	3/5	Appropriate Math Placement
CHEM 181 General Chemistry Lecture I: Quantitative or *CHEM 151 or 161/163	4	Appropriate Math Placement
ENGL 101 or 107 or 109H First-Year Composition	3	
ENGR 102A/B Introduction to Engineering or ENGR 102	3	ENGR102A & 102B: Pre- or Co-requisite of MATH 112 or higher; First-Year Status; College of Engineering Major; must not have taken ENGR102
UNIV 101 Intro to the General Education Experience	1	
Semester Total	14/16	
2nd Semester		
MATH 129 Calculus II	3	MATH 122B or 125 with C or higher
*CHEM 152 Chemical Thinking II or CHEM 182 or CHEM 162/164 or MSE 110	4	MSE 110: CHEM 151; CHEM 152: CHEM 151 or 141/143 or 161/163 and Appropriate Math Placement
ENGL 102 or 108 or 109H First-Year Composition	3	ENGL 101 or ENGL 107
*PHYS 141 Introductory Mechanics or PHYS 161H	4	MATH 122B or 125 or Appropriate Math Placement Level
General Education: Exploring Perspectives (Artist)	3	
Semester Total	17	
3rd Semester		
CHEE 270 Intro to Environmental Engineering	4	MATH 122B or 125 & CHEM 151 or 181 or 161/163; Completion or concurrent enrollment MATH 129, CHEM 152 or 182 or 162/164 or MSE 110
CHEE 205 Intro to MATLAB and Python	3	MATH 122B or MATH 125
MATH 223 Vector Calculus	4	MATH 129 with C or higher
CHEM 241A Lectures in Organic Chemistry or CHEM 242A or 246A	3	CHEM 152, 162, or 182
CHEM 243A Organic Chemistry Laboratory I or CHEM 247A	1-2	CHEM 152 or 162/164 or 182; Pre-requisite or concurrent in CHEM 241A or 242A or 246A
General Education: Exploring Perspectives (Humanist)	3	
Semester Total	18/19	
4th Semester		
CHEE 202 Elements of Chemical & Environmental Engineering II	4	CHEE 201 or 270 and CHEE 205
CHEE 300 Intro to Water Chemistry for Engineers	3	CHEM 241A or 242A or 246A and CHEM 243A or 247A and CHEE 270
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129 or 223 with C or higher
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	4	PHYS 241 or 261H; PHYS 141 or 161H; MATH 129 or Appropriate Math Placement Level
General Education: Exploring Perspectives (Social Scientist)	3	
Semester Total	17	

*Each of the following foundational science courses satisfies the requirements for General Education: Exploring Perspectives (Natural Scientist): CHEM 151 or 152 or 161 or 162; or PHYS 141 or 161H.

Advanced Standing is required for 300- and 400-level engineering courses (see your academic advisor for details).

Course Number and Title	Units	Comments
5th Semester		
CHEE 330 Fluid Mechanics for Environmental Engineers	4	
SIE 305 Introduction to Engineering and Probability and Statistics	3	
CHEE 370R Environmental and Water Engineering	3	
Earth Science Elective	3	
†General Education: Building Connections	3	
Semester Total	16	
6th Semester		
CHEE 331 Heat and Mass Transfer for Environmental Engineering	3	
CHEE 336 Air Pollution Controls and Climate Engineering	3	
CHEE 377 Microbiology for Engineers	3	
Technical Elective	3	Consult major advisor for course approval
†General Education: Building Connections	3	
Semester Total	15	
7th Semester		
CHEE 442 Chemical Engineering Design Principles (Fall only, must take CHEE 443 in spring semester)	3	
CHEE 400A Environmental Engineering Laboratory I	1	
CHEE 476 Wastewater Treatment Design System	3	
Advanced Science Course: EHS 418, or ATMO 469A, or ENVS 464 (Fall Only)	3	
Engineering Elective	3	Consult major advisor for course approval
†General Education: Building Connections	3	
Semester Total	16	
8th Semester		
CHEE 443 Chemical Engineering Plant Design (if on CHEE 442/443 sequence)	3	
ATMO 469B Air Pollution II: Aerosols	3	
CHEE 400B Environmental Engineering Laboratory II	1	
CHEE 478 Introduction to Hazardous Waste Management	3	
Technical Elective	1 - 3	Dependent on selection of General Education course; consult major advisor for course approval
Engineering Elective	3	Consult major advisor for course approval
UNIV 301 General Education Portfolio	1	
Semester Total	15/18	

†Students should work closely with their academic advisor to select General Education: Building Connections courses; some course work in the major, such as some Technical Elective courses, may also fulfill General Education: Building Connections requirements.