

B.S. in Environmental Engineering

Four-Year Plan Catalog Year 2017-2018

Below is the *advised sequence* of courses for this degree program and prerequisites as of 4/20/17.

The official degree requirements and prerequisites can be found in the University General Catalog and the prerequisites are subject to change.

Course Number and Title	Units	Prerequisites
1ST SEMESTER		
MATH 122A/B or MATH 125 Calculus I with Applications	5/3	Appropriate Math Placement
CHEM 151 General Chemistry I OR CHEM 105A/106A	4	Appropriate Math Placement
ENGL 101 OR 107 OR 109H First-Year Composition	3	
ENGR 102A/B Introduction to Engineering OR ENGR 102	3	Completion or concurrent enrollment MATH in 122B or MATH 125
Tier I General Education	3	
2ND SEMESTER		
MATH 129 Calculus II	3	MATH 122B or MATH 125 with C or better
CHEM 152 General Chemistry II OR CHEM 105B/106B or MSE 110	4	CHEM 151
AME 105 Introduction to MATLAB I	1	Completion or concurrent enrollment in MATH 122B or MATH 125
ENGL 102 First-Year Composition or ENGL108 or ENGL 109H	3	ENGL 101 or 107 or 109H
PHYS 141 Introductory Mechanics	4	MATH 122B or MATH 125 or appropriate Math Placement Level
3RD SEMESTER		
CHEE 201- Elements of Chemical Engineering I	3	MATH 122B or MATH 125, CHEM 152
CHEE 201L Elements of Chemical Engineering I Computational Lab	1	AME 105, completion or concurrent enrollment in AME 205
MATH 223 Vector Calculus	4	MATH 129 with C or better
AME 205 Introduction to MATLAB II	1	AME105
CHEM 241A or CHEM 242A (Honors) or CHEM 246A Lectures in Organic Chemistry	3	CHEM 152, MSE 110 or CHEM 105B/106B
CHEM 243A or CHEM 247A Organic Chemistry Laboratory	1	Completion or concurrent enrollment of CHEM 241A or CHEM 242A or CHEM 246A
CHEE 295E Careers in Environmental Engineering	1	
ENVS 200 Introduction to Soil Science	3	CHEM 151
4TH SEMESTER		
CHEE 202 Elements of Chemical Engineering II	4	CHEE 201, 201L, Completion or concurrent enrollment MATH 254
CHEE 370R Environmental and Water Engineering	3	CHEE 201 and (CHEM 241A or CHEM 242A or CHEM 246A) and (CHEM 243A or CHEM 247A) or Advanced Standing
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129 or 223 with C or better
PHYS 241 Introductory Electricity and Magnetism	4	PHYS 141 or PHYS 161H, MATH 129 or appropriate Math Placement Level, Math 223 is recommended but not required.
ENGR 211C Statics	1	PHYS 141, MATH 129.
Tier I General Education	3	

Course Number and Title	Units	Prerequisites
Advanced Standing is required for 3xx and 4xx courses (See advisor for requirements & prerequisites)		
5TH SEMESTER		
CHEE 400R Water Chemistry for Engineers	3	
CHEE 476A Water Treatment System Design	3	
CE 218 Mechanics of Fluids	3	
CHEE 477R Microbiology for Engineers or BIOC 462A - Biochemistry	3	ENGR 211C
SIE 305 Introduction to Engineering and Probability and Statistics or MATH 363 Introduction to Statistics and Biostatistics	3	
Tier I General Education	3	
6TH SEMESTER		
CHEE 476B Wastewater Treatment Design System	3	
CHEE 478 Introduction to Hazardous Waste Management	3	
CHEM 480A Physical Chemistry	3	
Technical Elective	3	See advisor for course approval
Tier I General Education	3	
7TH SEMESTER		
CHEE 400A Environmental Engineering Laboratory I	1	
ENGR 498A Senior Capstone (Fall Only)	3	CHEE 476A and CHEE 476B
Engineering Elective	3	See advisor for course approval
Technical Elective	3	See advisor for course approval
Tier I General Education	3	
Tier II General Education	3	
8TH SEMESTER		
CHEE 474 Fate and Transport Processes in Environmental Engineering	3	
ENGR 498B Senior Capstone (Spring Only)	3	
ATMO 469B Air Pollution II: Aerosols	3	MATH 223 ATMO 469A is not prerequisite to ATMO 469B but is recommended.
Engineering Elective	3	See advisor for course approval
CHEE 400B Environmental Engineering Laboratory II	1	

*Tier I and II General Education Courses must meet University general education requirements. One course must be recognized by the university as meeting the Diversity Requirement.