

B.S. in Environmental Engineering

Four-Year Plan

Catalog Year 2016-2017

Below is the *advised sequence* of courses for this degree program and prerequisites are as of 2/17/16.

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 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	For Both: CHEM 151
AME 105 Introduction to MATLAB I	1	Completion or concurrent enrollment in MATH 122B or MATH 125
ENGL 102 or ENGL108 or ENGL 109H First-Year Composition	3	ENGL 101 or 107 or 109H
PHYS 141 Introductory Mechanics OR PHYS 161H	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, Concurrent Enrollment or completion of AME 205
MATH 223 Vector Calculus	4	MATH 129 with C or better
AME 205 Introduction to MATLAB II	1	AME105
CHEM 241A or CHEM242A (Honors) or CHEM246A Lectures in Organic Chemistry	3	For CHEM241A, CHEM242A, CHEM246A: CHEM 152 or CHEM 105B/106B
CHEM 243A or CHEM247A Organic Chemistry Laboratory	1	For Both: Completion or concurrent enrollment CHEM 241A or CHEM242A or CHEM246A
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 (Chem241A or CHEM242A or CHEM 246A) and (CHEM243A or CHEM 247A) or Adv. Standing Engineering
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129, 223 or 250A with C or better
PHYS 241 Introductory Electricity and Magnetism OR PHYS 261H	4	PHYS 141 or PHYS 161H, MATH 129 or appropriate Math Placement Level
CHEE 295E- Careers in Environmental Engineering	1	
ENGR 211 C- Statics	1	

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	ENGR 211C
CHEE 477R - Microbiology for Engineers or BIOC 462A - Biochemistry	3	
SIE 305 - Introduction to Engineering and Probability and Statistics or MATH 263 – 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	
Tech Elective	3	See advisor for course approval
Tier I General Education	3	
Tier II General Education	3	
7TH SEMESTER		
CHEE 474 – Fate and Transport Processes in Environmental Engineering	3	
CHEE 400A – Environmental Engineering Laboratory I	1	
CHEE 400B – Environmental Engineering Laboratory II	1	
ENGR 498A - Senior Capstone (Fall Only)	3	
Tech Elective	3	See advisor for course approval
Tier I General Education	3	
8TH SEMESTER		
ENGR 498B - Senior Capstone (Spring Only)	3	
ATMO 4698 Air Pollution II: Aerosols	3	MATH 223. ATMO 469A not prerequisite to ATMO 469B but is recommended.
Engr. Elective	3	See advisor for course approval
Engr. Elective	3	See advisor for course approval
Tier II General Education	3	

*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.