B.S. IN ENVIRONMENTAL ENGINEERING

CATALOG YEAR 2015-2016

Below is the *advised sequence* of courses for this degree program and prerequisites as of 7/30/15. 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	
ENGL 101 First-Year Composition	3	
ENGR 102 Introduction to Engineering Or ENGR102A and ENGR102B	3	Concurrent enrollment or completion of 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 MSE 110	4	CHEM 151 or CHEM 105A/106B
AME 105 Introduction to MATLAB I	1	Concurrent enrollment or completion of MATH 122B or MATH 125
ENGL 102 First-Year Composition or ENGL108 or ENGL 109H	3	ENGL 101 or 107
PHYS 141 Introductory Mechanics	4	MATH 122B or MATH 125; Concurrent enrollment or completion of MATH 129
3RD SEMESTER		
CHEE 201 Elements of Chemical Engineering I **AND** CHEE 201L Elements of Chemical Engineering I- Computational Lab	3 1	MATH 122B or MATH 125, CHEM 152, ECE 175, AME 105, Concurrent enrollment or completion of AME 205, ENGR102
MATH 223 Vector Calculus	4	MATH 129 with C or better
AME 205 Introduction to MATLAB II	1	AME105
CHEM 241A Lectures in Organic Chemistry **OR** CHEM 242A **OR** CHEM 246A	3	CHEM 152 or 105B/106B
CHEM 243A Organic Chemistry Laboratory **OR** CHEM 247A	1	Concurrent enrollment or completion of CHEM 241A or CHEM 242A or CHEM 246A
Tier I General Education	3	
4TH SEMESTER		
CHEE 202 Elements of Chemical Engineering II	4	CHEE 201, 201L, MATH 223
CHEE 370R Environmental and Water Engineering	3	
MATH 254 Intro to Ordinary Differential Equations	3	MATH 129 with C or better
PHYS 241 Introductory Electricity and Magnetism	4	PHYS 141 or PHYS 161H, MATH 129
CHEE 295E Careers in Environmental Engineering	1	
ENGR 211C Engineering Science Module - Statics	1	MATH 129, Phys 141

COURSE NUMBER AND TITLE	UNITS	
CURRENT PREREQUISITES FOR UPPER DIVISION COURSES CAN BE FOUND IN THE UA GENERAL CATALOG		
ADVANCED STANDING IS REQUIRED FOR 3XX AND 4XX COURSES (SEE ADVISOR FOR REQUIREMENTS)		
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	
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	
Technical Elective – See major advisor for course approval	3	
Technical Elective – See major advisor for course approval	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	
Technical Elective – See major advisor for course approval	3	
Tier I General Education	3	
8TH SEMESTER		
ENGR 498B Senior Capstone (Spring Only)	3	
CHEE 480 Advanced Topics in Environmental Engineering	3	
Engineering Elective – See major advisor for course approval	3	
Engineering Elective – See major advisor for course approval	3	
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.