

# ENVIRONMENTAL ENGINEERING, BS

Environmental engineers are interested in how natural and managed systems respond to physical, chemical, and biological processes in order to reduce the impact of industrialized society on human health and the environment. Environmental engineers engage in developing next generation integrated waste management systems, integrated water reuse and sustainable cities.

## Accreditation

Information can be found on Department website.

## FE Exam

All students are strongly encouraged to prepare for and pass the Fundamentals of Engineering (FE) examination prior to graduation.

Students earning the Bachelor of Science in Environmental Engineering (BS) degree must complete all University, College and departmental degree requirements for a total of 126 credits. These include General Education requirements and the following major requirements and ancillary requirements. Additional information, including a semester-by-semester flowchart of degree requirements, can be found on the departmental website. Students completing the Bachelor of Science in Environmental Engineering (BS) degree must comply with all College of Engineering academic policies and requirements.

Major and Ancillary Requirements		Hours
Major Courses		
ENGR 101	The World of Engineering	1
ENGR 104	Fundamentals of Engineering	3
ENGR 171	Large-Scale Eng. Graphics	1
AEM 201	Statics	3
AEM 250	Mechanics Of Materials I	3
AEM 264	Dynamics	3
AEM 311	Fluid Mechanics	3
CE 260	Civil & Constructn Surveying	2
CE 262	Civil & Constructn Engr Matls	3
CE 320	Intro Environmental Engineerg	3
CE 340	Geotechnical Engineering	4
CE 378	Water Resources Engineering	3
CE 405	Capstone Design Site: EnvE	4
CE 420	Environmental Measurements	3
CE 422	Solid And Hazardous Waste Mgt	3
CE 424	Water And Wastewater Treatment	3
CE 425	Air Quality Engineering	3
CE 475	Hydrology (CE Tech Elective)	3
GES 255	Engineering Statistics I	3
Engineering Systems Elective		3
ECE 320 or Fundmtl Electrical Engr		
ME 215 Thermodynamics I		
or		
ME 216 Thermal Engineering Survey		
General Elective		6

General Elective options include courses in the below subjects from course numbers 300 to 499, except 397. US and Global Citizenship designated courses can be used for this requirement or the General Education requirement, but not both. Students must meet prerequisites required by the selected course.

AEM, CHE, CE, CS, ECE, ENGR, GES, ME, MFE, MTE, AC, BSC, CH, EC, FI, GBA, GEO, GY, MGT, MS, MKT, OM, PH

Credit Hours Subtotal: 63

### Ancillary Courses

BSC 114	Principles Of Biology I	4
& BSC 115 or	and Laboratory Biology I	
BSC 118	Honors General Biology I	
CH 101 or	General Chemistry	4
CH 117	Honors General Chemistry	
CH 102 or	General Chemistry	4
CH 118	Honors General Chemistry	
MATH 125 or	Calculus I	4
MATH 145	Honors Calculus I	
MATH 126 or	Calculus II	4
MATH 146	Honors Calculus II	
MATH 227 or	Calculus III	4
MATH 247	Honors Calculus III	
MATH 238	Appld Diff Equations I	3
PH 105 or	General Physics W/Calc I	4
PH 125	Honors Gen Ph W/Calculus	
Approved Science		4
Any core curriculum Natural Science designated course except BSC 108, BSC 109, BSC 114, BSC 115, BSC 118, CH 101, CH 102, CH 104, CH 117, CH 118, PH 101, PH 102, PH 105, PH 115, PH 125		
Credit Hours Subtotal:		35

### General Education Courses

The specific courses each student completes in order to fulfill the University of Alabama's general education requirements will depend upon the particular degree program in which the student is enrolled. To determine how these general education requirements are integrated into your program of study, review your semester-by-semester flowchart and discuss with your academic advisor.

All environmental engineering students are strongly encouraged to prepare for and pass the Fundamentals of Engineering (FE) examination prior to graduation. A graduate of the program who has passed the FE exam would then be an Engineer Intern under Model Law as maintained by the National Council of Examiners for Engineering and Surveying (ncees.org). It is recommended that the FE be taken the semester prior to graduation.

Environmental engineering provides a spectrum of career opportunities with consulting firms, public utilities, state and federal governments and industry. In addition, environmental engineering graduates can use their technical knowledge and skills for entry into other professions such as medicine, law, public and industrial health and natural resource management.

Learn more about opportunities in this field at the Career Center