

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
GALLOGLY COLLEGE OF ENGINEERING
THE UNIVERSITY OF OKLAHOMA

Academic Year
For Students Entering the Oklahoma State System for Higher Education Summer 2023 through Spring 2024

General Requirements	
Minimum Total Credit Hours	125
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	2.00
Major - Combined and OU	2.00
Curriculum - Combined and OU	2.00

Program
Environmental Engineering
B390
Bachelor of Science

OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. **Courses graded P/NP will not apply.**

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code	Title	Credit Hours
Core Area I: Symbolic and Oral Communication		
<i>English Composition</i>		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
<i>Language (0-10 hours in the same language)</i>		
This requirement can be met by two years of the same language in high school:		0-10
Beginning Course (0-5 hours)		
Beginning Course, continued (0-5 hours)		
<i>Mathematics</i>		
MATH 1914	Differential and Integral Calculus I (Core I) ^{1,2}	4
Core Area II: Natural Science (including one laboratory)		
PHYS 2514	General Physics for Engineering and Science Majors (Core II) ²	4
CHEM 1315	General Chemistry (Core II-Lab) ²	5
or CHEM 1335	General Chemistry I: Signature Course	
Core Area III: Social Science		
P SC 1113	American Federal Government	3
Choose one course ³		3
Core Area IV: Arts & Humanities		
<i>Artistic Forms</i>		
Choose one course ³		3
<i>Western Culture</i>		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
HSTM 3333	Technology and Society in World History (or approved substitute Core IV-Western Culture) ³	3
<i>World Culture</i>		
ANTH 4623	Approaches to Cross-Cultural Human Problems (or approved substitute Core IV-World Culture) ³	3
Core Area V: First-Year Experience		
Choose one course ³		3
Total Credit Hours		40-50

¹MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

²Major support requirements that also satisfy University General Education requirements.

³To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

FREE ELECTIVES

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a **grade of C or better** is required in each course in the curriculum, including all prerequisite courses.

MAJOR REQUIREMENTS

Code	Title	Credit Hours
Required Courses		
CEES 1000	CEES Seminar (minimum of four semesters required)	0
CEES 1111	Exploring CEES	1
CEES 2113	Statics	3
CEES 2153	Mechanics of Materials	3
CEES 2213	CADD Fundamentals	3
CEES 2223	Fluid Mechanics	3
CEES 2313	Water Quality Fundamentals	3
CEES 2323	Environmental Transport and Fate Process	3
CEES 3213	Water Resources Engineering	3
CEES 3243	Water and Wastewater Treatment Design	3
CEES 3361	Soil Mechanics Laboratory	1
CEES 3363	Soil Mechanics	3
CEES 4114	Aquatic Chemistry	4
CEES 4253	Statistics and Probability	3
CEES 4263	Hazardous and Solid Waste Management	3
CEES 4324	Environmental Biology and Ecology	4
CEES 4921	Introduction to EE Capstone	1
CEES 4923	Environmental Engineering Capstone	3
CEES 4943	Air Quality Management	3
CEES 4951	Contemporary Topics in Professional Practice	1
Total Credit Hours		51

MAJOR SUPPORT REQUIREMENTS

Code	Title	Credit Hours
Math and Science		
CHEM 1415	General Chemistry (Continued)	5
or CHEM 1435	General Chemistry II: Signature Course	
CHEM 3053	Organic Chemistry I: Biological Emphasis	3
MATH 2924	Differential and Integral Calculus II	4
MATH 2934	Differential and Integral Calculus III	4
MATH 3113	Introduction to Ordinary Differential Equations	3
PHYS 2524	General Physics for Engineering and Science Majors	4
Professional Electives		
Choose any two 3000-level or higher course in CEES (one three-hour professional elective can be taken outside CEES with advisor approval)		6
Additional College Requirements		
ENGR 1410	Freshman Engineering Orientation ¹	0
ENGR 1411	Pathways to Engineering Thinking ¹	1
ENGR 2002	Professional Development	2
ENGR 2461	Thermodynamics	1
ENGR 3401	Engineering Economics	1
Total Credit Hours		34

¹Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.

More information in the catalog: (<http://ou-public.courseleaf.com/gallogly-engineering/civil-engineering-environmental-science/environmental-engineering-bachelor-science/>).

SUGGESTED SEMESTER PLAN OF STUDY

Bachelor of Science in Environmental Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Environmental Engineering and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Year	FIRST SEMESTER		Hours	SECOND SEMESTER		Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	CHEM 1315	General Chemistry (Core II-Lab) ¹	5	CHEM 1415	General Chemistry (Continued) (Core II-Lab) ¹	5
	MATH 1914	Differential and Integral Calculus I (Core I) ²	4	MATH 2924	Differential and Integral Calculus II ²	4
	ENGR 1410	Freshman Engineering Orientation ³	0	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
	ENGR 1411	Pathways to Engineering Thinking ³	1	CEES 1111	Exploring CEES	1
		Approved Elective: First-Year Experience (Core V) ⁶	3			
	CREDIT HOURS		16	CREDIT HOURS		17
SOPHOMORE	MATH 2934	Differential and Integral Calculus III ²	4	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3
	PHYS 2524	General Physics for Engineering and Science Majors	4	MATH 3113	Introduction to Ordinary Differential Equations	3
	CEES 1000	CEES Seminar ⁴	0	CEES 1000	CEES Seminar ⁴	0
	CEES 2213	CADD Fundamentals	3	CEES 2153	Mechanics of Materials	3
	CEES 2113	Statics	3	CEES 2223	Fluid Mechanics	3
	CEES 2313	Water Quality Fundamentals	3	CEES 2323	Environmental Transport and Fate Process	3
				ENGR 2002	Professional Development	2
	CREDIT HOURS		17	CREDIT HOURS		17
JUNIOR	CHEM 3053	Organic Chemistry I: Biological Emphasis	3	HSTM 3333	Technology and Society in World History (or approved substitute) (Core IV, Western Culture)	3
	CEES 1000	CEES Seminar ⁴	0	CEES 1000	CEES Seminar ⁴	0
	CEES 3213	Water Resources Engineering	3	CEES 3243	Water and Wastewater Treatment Design	3
	CEES 3363	Soil Mechanics	3	CEES 4253	Statistics and Probability	3
	CEES 3361	Soil Mechanics Laboratory	1	CEES 4943	Air Quality Management	3
	ENGR 3401	Engineering Economics	1		Approved Elective: Social Science (Core III) ⁶	3
		Professional Elective ⁵	3	ENGR 2461	Thermodynamics	1
	CREDIT HOURS		14	CREDIT HOURS		16
SENIOR	CEES 1000	CEES Seminar ⁴	0	ANTH 4623	Approaches to Cross-Cultural Human Problems (or approved substitute) (Core IV, World Culture)	3
	CEES 4114	Aquatic Chemistry	4	P SC 1113	American Federal Government (Core III)	3
	CEES 4263	Hazardous and Solid Waste Management	3		Professional Elective ⁵	3
	CEES 4324	Environmental Biology and Ecology	4		Approved Elective, Artistic Forms (Core IV) ⁶	3
	CEES 4921	Introduction to EE Capstone	1	CEES 1000	CEES Seminar ⁴	0
	CEES 4951	Contemporary Topics in Professional Practice	1	CEES 4923	Environmental Engineering Capstone	3
	CREDIT HOURS		13	CREDIT HOURS		15

¹ CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.

² MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

³ Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.

⁴ Students must complete a minimum of four semesters of CEES 1000.

⁵ Professional electives can be chosen from any 3000-level or higher course in CEES. One three-hour professional elective can be taken outside CEES with advisor approval.

⁶ To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.