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

Academic Year	General Requirements	Program
For Students Entering the Oklahoma	Minimum Total Credit Hours	Architectural Engineering
State System for Higher Education	Overall - Combined and OU 2.00	B035
Summer 2024 through Spring 2025	Major - Combined and OU 2.00   Curriculum - Combined and OU 2.00	Bachelor of Science

OU encourages students to complete at least 33 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: Symboli	c and Oral Communication			
English Composition				
ENGL 1113	Principles of English Composition	3		
ENGL 1213	Principles of English Composition	3		
or EXPO 1213	Expository Writing			
Language (0-10 hours	in the same language)			
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)			
Mathematics				
MATH 1914	Differential and Integral Calculus I (Core I) <sup>1,2</sup>	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) <sup>2</sup>	5		
or CHEM 1335	General Chemistry I: Signature Course			
Core Area III: Social	, 0			
P SC 1113	American Federal Government	3		
Choose one course <sup>3</sup>		3		
Core Area IV: Arts &	Humanities			
Artistic Forms				
Choose one course <sup>3</sup>		3		
Western Culture				
HIST 1483	United States to 1865	3		
or HIST 1493	United States, 1865 to the Present			
Will be satisfied in ma	-	0		
ARCH 2243	History of the Built Environment I (Core IV-Western Culture)			
World Culture				
ANTH 4623	Approaches to Cross-Cultural Human Problems (or	3		
	approved substitute Core IV-World Culture) <sup>3</sup>			
Core Area V: First-Ye				
ENGR 1413	Pathways to Engineering Thinking (Core V-FYE) <sup>4</sup>	3		
Total Credit Hours		37-47		

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

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

<sup>3</sup> To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000).

4 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

#### **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 Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural 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 Hou
Required Courses		
AME 2213	Thermodynamics	
AME 3173	Heat Transfer	
AME 4653	Air Conditioning Systems	
ARCH 1263	Methods II - Pattern of Architecture	
ARCH 2243	History of the Built Environment I	
ARCH 2363	Materials and Form	
CEES 1000	CEES Seminar (minimum of four semesters required)	
CEES 1111	Exploring CEES	
CEES 2113	Statics	
CEES 2153	Mechanics of Materials	
CEES 2213	CADD Fundamentals	
CEES 2223	Fluid Mechanics	
CEES 3263	Introduction to Dynamics for Architectural and Civil Engineers	
CEES 3361	Soil Mechanics Laboratory	
CEES 3363	Soil Mechanics	
CEES 3403	Materials	
CEES 3413	Structural Analysis I	
CEES 3453	Introduction to Construction Management	
CEES 3663	Structural Design - Steel I	
CEES 3673	Structural Design - Concrete I	
CEES 4113	Building Lighting and Electrical Systems	
CEES 4333	Foundation Engineering	
CEES 4753	Structural Design - Wood	
CEES 4991	Introduction to AE Capstone	
CEES 4993	Architecture Engineering Capstone	
ENGR 2431	Electrical Circuits	
ENGR 3401	Engineering Economics	
Professional Electiv	0 0	
	vel or higher course in CEES	
Total Credit Hours		
	MAJOR SUPPORT REQUIREMENTS	,
Code	Title	Credit Hou
Math and Science		
MATH 2924	Differential and Integral Calculus II	
MATH 2934	Differential and Integral Calculus III	
MATH 3113	Introduction to Ordinary Differential Equations	
PHYS 2524	General Physics for Engineering and Science Majors	
Choose one of the fe	Physical Geology for Science and Engineering Majors	
Choose one of the fo GEOL 1114	(Core II-Lab)	
	(Core II-Lab)	
GEOL 1114	(Core II-Lab)	
GEOL 1114 Basic Science Ele	(Core II-Lab) ective or above)	
GEOL 1114 Basic Science Ele Math (calculus c	(Core II-Lab) ective or above)	

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

## SUGGESTED SEMESTER PLAN OF STUDY

Bachelor of Science in Architectural Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Architectural 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
		Choose one of the following:	4	MATH 2924	Differential and Integral Calculus II <sup>1</sup>	4
	GEOL 1114	Physical Geology for Science and Engineering Majors ( Core II-Lab )		PHYS 2514	General Physics for Engineering and Science Majors ( Core II )	4
		MATH (calculus or above)		ARCH 1263	Methods II - Pattern of Architecture	3
		Basic Science Elective		CEES 1111	Exploring CEES	1
	MATH 1914	Differential and Integral Calculus I ( Core I ) $^{1}$	4			
	ARCH 2363	Materials and Form	3			
	ENGR 1413	Pathways to Engineering Thinking ( Core V-FYE ) $^{\rm 2}$	3			
		CREDIT HOURS	17		CREDIT HOURS	15
SOPHOMORE	ARCH 2243	History of the Built Environment I ( Core IV: Western Culture )	3	CHEM 1315	General Chemistry ( Core II-Lab ) $^4$	5
	MATH 2934	Differential and Integral Calculus III <sup>1</sup>	4	ENGR 2002	Professional Responsibilities and Skills of Engineers and Scientists	2
	PHYS 2524	General Physics for Engineering and Science Majors	4	MATH 3113	Introduction to Ordinary Differential Equations	3
	CEES 1000	CEES Seminar <sup>3</sup>	0	CEES 1000	CEES Seminar <sup>3</sup>	0
SOI	CEES 2213	CADD Fundamentals	3	CEES 2153	Mechanics of Materials	3
	CEES 2113	Statics	3	CEES 2223	Fluid Mechanics	3
		CREDIT HOURS	17		CREDIT HOURS	16
JUNIOR	AME 2213	Thermodynamics	3	AME 3173	Heat Transfer	3
	CEES 1000	CEES Seminar <sup>3</sup>	0	CEES 1000	CEES Seminar <sup>3</sup>	0
	CEES 3263	Introduction to Dynamics for Architectural and Civil Engineers	3	CEES 3403	Materials	3
	CEES 3363	Soil Mechanics	3	CEES 3663	Structural Design - Steel I	3
	CEES 3361	Soil Mechanics Laboratory	1	CEES 4113	Building Lighting and Electrical Systems	3
E	CEES 3413	Structural Analysis I	3	CEES 3453	Introduction to Construction Management	3
	ENGR 2431	Electrical Circuits	1	ENGR 3401	Engineering Economics	1
	P SC 1113	American Federal Government ( Core III )	3			
		CREDIT HOURS	17		CREDIT HOURS	16
SENIOR	AME 4653	Air Conditioning Systems	3		Choose one of the following:	3
	CEES 1000	CEES Seminar <sup>3</sup>	0	ANTH 4623	Approaches to Cross-Cultural Human Problems ( Core IV- World Culture )	
	CEES 3673	Structural Design - Concrete I	3		Approved substitute (Core IV-World Culture)	
		CEES Professional Elective <sup>5</sup>	3	CEES 1000	CEES Seminar <sup>3</sup>	0
	CEES 4753	Structural Design - Wood	3	CEES 4333	Foundation Engineering	3
	CEES 4991	Introduction to AE Capstone	1	CEES 4993	Architecture Engineering Capstone	3
	HIST 1483 or HIST 1493	United States to 1865 ( Core IV ) or United States, 1865 to the Present	3		Approved Elective: Social Science (Core III) <sup>6</sup>	3
					Approved Elective: Artistic Forms (Core IV) <sup>6</sup>	3
		CREDIT HOURS	16		CREDIT HOURS	15

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

2 Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

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

4 CHEM 1315 can be substituted with CHEM 1335 (Fall only).

5 Professional Elective can be chosen from any 3000-level or higher course in CEES

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.