

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 2025 through Spring 2026

General Requirements	
Minimum Total Credit Hours	120
Minimum Upper-Division Hours	40
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	2.00
Major - Combined and OU	2.00

Program
Software Development and Integration
B846
Bachelor of Science

OU encourages students to complete at least 30 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)

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 (minimum 3 hours)</i>		
MATH 1503	College Algebra ¹	3
Core Area II: Natural Science (minimum 7 hours, including one laboratory)		
Choose two courses from different disciplines, one must include a laboratory		7
Core Area III: Social Science		
P SC 1113	American Federal Government	3
Choose one course		3
Core Area IV: Arts & Humanities		
<i>Artistic Forms</i>		
Choose one course		3
<i>Western Culture</i>		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
Choose one course (excluding HIST 1483 and HIST 1493)		3
<i>World Culture</i>		
Choose one course		3
Core Area V: First-Year Experience		
POLY 1003	Frontiers in Emerging Technologies, First-year Experience ¹	3
Total Credit Hours		37-47

¹ Major support requirements that also satisfy University General Education requirements.

OPEN ELECTIVES

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

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		
SDI 3103	Programming Languages	3
SDI 3123	Algorithms I	3
SDI 3143	Mobile Application Development	3
SDI 3203	Computer Networks	3
SDI 3213	Cloud Computing	3
SDI 3403	Web Systems Development	3
SDI 3413	User Interface and Experience (UI/UX)	3
SDI 4103	Software Project Management	3
SDI 4133	Algorithms II	3
SDI 4213	DevOps - CI/CD	3
SDI 4313	Data Analytics	3
SDI 4903	SDI Capstone Project	3
CYBS 3213	Foundations of Cybersecurity	3
CYBS 3313	Introduction to Cyber Ethics and Law	3
CYBS 3913	Database Fundamentals	3
Major Electives		
Choose 4 approved SDI electives from a list maintained by the department		12
Total Credit Hours		57

MAJOR SUPPORT REQUIREMENTS

Code	Title	Credit Hours
Math and Science		
POLY 1203	Foundations of Programming for Emerging Technologies	3
POLY 2203	Applied Statistics for Modern Computing	3
POLY 2513	Applied Discrete Mathematics for Computing	3
Total Credit Hours		9

More information in the catalog: (<http://ou-public.courseleaf.com/gallogly-engineering/polytechnic-institute/software-development-integration-bachelor-science/>).

SUGGESTED SEMESTER PLAN OF STUDY

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with OU Polytechnic Institute academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, Polytechnic Institute, and major 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. 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 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	3	ENGL 1213 or EXPO 1213	Principles of English Composition or Expository Writing	3
	MATH 1503	College Algebra ¹	3		Approved Elective, Natural Science (Core II) ³	3
	P SC 1113	American Federal Government	3		Approved Elective, Social Science (Core III) ¹	3
	POLY 1003	Frontiers in Emerging Technologies, First-year Experience (Core V) ¹	3		Open Elective, lower-division ²	3
		Open Elective, lower-division ²	3	POLY 1203	Foundations of Programming for Emerging Technologies	3
	CREDIT HOURS		15	CREDIT HOURS		15
SOPHOMORE	HIST 1483 or HIST 1493	United States to 1865 or United States, 1865 to the Present	3		Approved Elective, World Culture (Core IV) ¹	3
		Approved Elective, Western Culture (Core IV) ¹	3		Open Elective, lower-division ²	3
		Approved Elective, Natural Science with Lab (Core II-Lab) ³	4		Open Elective, lower-division ²	2
		Open Elective, lower-division ²	3		Open Elective, lower-division ²	3
	POLY 2203	Applied Statistics for Modern Computing	3	POLY 2513	Applied Discrete Mathematics for Computing	3
	CREDIT HOURS		16	CREDIT HOURS		14
JUNIOR	SDI 3103	Programming Languages	3	SDI 3213	Cloud Computing	3
	SDI 3203	Computer Networks	3	SDI 3123	Algorithms I	3
	SDI 3403	Web Systems Development	3	SDI 3413	User Interface and Experience (UI/UX)	3
	CYBS 3913	Database Fundamentals	3	SDI 3143	Mobile Application Development	3
		Approved Upper-Division Elective (3000-4000), Artistic Forms (Core IV) ¹	3	CYBS 3313	Introduction to Cyber Ethics and Law	3
	CREDIT HOURS		15	CREDIT HOURS		15
SENIOR	SDI 4103	Software Project Management	3	SDI 4903	SDI Capstone Project	3
	SDI 4213	DevOps - CI/CD	3	SDI 4313	Data Analytics	3
	SDI 4133	Algorithms II	3		SDI Major Elective	3
	CYBS 3213	Foundations of Cybersecurity	3		SDI Major Elective	3
		SDI Major Elective	3		SDI Major Elective	3
	CREDIT HOURS		15	CREDIT HOURS		15

¹ 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.

² Open electives are not required to be General Education approved.

³ Courses taken to fulfill the Natural Science requirement must be chosen from the University-Wide General Education Approved Course List (Core II). At least one of the natural science courses must have a laboratory component.