REQUIREMENTS FOR THE BACHELOR OF SCIENCE
DODGE FAMILY COLLEGE OF ARTS AND SCIENCES
THE UNIVERSITY OF OKLAHOMA

Academic Year	General Requirements	Program
For Students Entering the Oklahoma State System for Higher Education **Summer 2025 through Spring 2026**	Minimum Total Credit Hours ..... **120** Minimum Upper-Division Hours ..... **48** Major Hours ..... **40-43** **Minimum Retention/Graduation Grade Point Averages:** Overall - Combined and OU ..... **2.00** Major - Combined and OU **2.00**	**Biology: Integrative Biological Systems** **B105 P334** 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.

Minimum Total Credit Hours: 120
Major Hours: 40-43
Minimum Upper-Division Hours: 48

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00

Program Code: B105 P334

General Education and College Requirements

Courses for fulfillment of General Education and Dodge College of Arts & Sciences requirements must be from the approved General Education course list published in the Class Schedule or at http://www.ou.edu/gened/courses. **Courses graded P/NP will not apply.**

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS)

Code	Title	Credit Hours
Core Area I: Symbolic and Oral Communication		
English Composition (6 hours)		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
Language (0-13 hours in the same language)		
The college requirement cannot be met by high school coursework.		
Beginning Course		0-5
Beginning Course, continued		0-5
Intermediate Course (2000 level) [1,2]		0-3
Mathematics (3 hours)		
Choose one course from the General Education Mathematics list		3
Core Area II: Natural Science (7 hours, including one laboratory component)		
Biological Science		
Choose an approved General Education Natural Science course with one of the following prefixes: BIOL, HES, MBIO, or PBIO [1]		3-4
Physical Science		
Choose an approved General Education Natural Science course with one of the following prefixes: AGSC, ASTR, CHEM, GEOG, GEOL, GPHY, METR, or PHYS [1]		3-4
Core Area III: Social Science (6 hours)		
P SC 1113	American Federal Government	3
Choose one course from the General Education Social Science list		3
Core Area IV: Arts and Humanities (18 hours)		
Artistic Forms		
Choose one course from the General Education Artistic Forms list		3
Western Culture		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
Choose one course from the General Education Western Culture list (excluding HIST 1483/1493)		3
World Culture		
Choose one course from the General Education World Culture list		3
Additional Core IV Upper-Division Arts & Humanities courses		
Choose one course from Artistic Forms, Western Culture, or World Culture [1,3]		3
Choose one course from Artistic Forms, Western Culture, or World Culture [1,3]		3
Core Area V: First Year Experience (3 hours)		
Choose one course		3
Total Credit Hours		**56**

1 College of Arts and Sciences Requirements: college requirements are not automatically fulfilled by a previous degree.
2 One course at the intermediate level or demonstrated competency at that level
3 6 upper-division hours, 2 courses, at the 3000- 4000-level. ***Must be outside the major.***

Free Electives

Electives to bring total applicable hours to the minimum total required for the degree including 48 upper-division hours.

Major Requirements

- **Some courses required for the major may also fulfill University General Education and/or Dodge College of Arts & Sciences Requirements**
- Forty to Forty-three hours of major coursework must be completed,exclusive of BIOL 1003, BIOL 1005, BIOL 1013, BIOL 1114, BIOL 1121, BIOL 1203, BIOL 2124, BIOL 2234, and BIOL 2255.
- **A grade of C or better must be earned in each course counted for major and major support credit.**

Code	Title	Credit Hours
Biology Core		
BIOL 1111	Perspectives and Professional Skills in the Biological Sciences	1
BIOL 1124	Intro Biol: Molecule/Cell/Phys	4
BIOL 1134	Introductory Biology: Evolution, Ecology and Diversity	4
BIOL 2913	Intro to Quantitative Biology	3
BIOL 3013	Evolution	3
BIOL 3333	Genetics	3
Total Credit Hours		**18**

Integrative Biological Systems Concentration (22-25 hours)

Code	Title	Credit Hours
Required Courses		
CHEM 3153	Organic Chemistry II: Biological Emphasis	3
BIOL 3113	Cell Biology	3
BIOL 3103	Principles of Physiology	3
BIOL 3601	Principles of Biological Systems	1
BIOL 4693	Biological Systems and Analysis	3
Electives		
Choose 9-12 hours, with at least one course from each of the following elective groups to include 2 labs: [1]		9-12
Molecular Systems		
Structure and Function		
Behavioral and Ecological Systems		
Total Credit Hours		**22-25**

[1] Approved elective lists will be maintained by the department. Electives to be chosen in consultation with departmental advisor; must include two upper-division laboratory courses. (Independent study, honors reading or honors research cannot count toward laboratory course requirements.)

Major Support Requirements

Code	Title	Credit Hours
Chemistry		
CHEM 1315	General Chemistry	5
CHEM 1415	General Chemistry (Continued)	5
CHEM 3053	Organic Chemistry I: Biological Emphasis	3
CHEM 3152	Organic Chemistry Laboratory: Biological Emphasis	2
Physics		
Choose one of the following:		8
PHYS 2414 & PHYS 2424	General Physics for Life Science Oriented Majors and General Physics for Life Science Oriented Majors	
or		
PHYS 2514 & PHYS 2524	General Physics for Engineering and Science Majors and General Physics for Engineering and Science Majors	
Math [1]		
MATH 1743	Calculus I for Business, Life and Social Sciences	3
or MATH 1823	Calculus and Analytic Geometry I	
Total Credit Hours		**26**

[1] MATH 1914 will also count toward satisfying the Math major support course requirement.

More information in the catalog: (http://ou-public.courseleaf.com/dodge-arts-sciences/biological-sciences/biology-integrative-biological-systems-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 Dodge College of Arts and Sciences and/or Department of Biology academic advisors to verify that courses selected each semester fulfill the recommended plan and satisfy University, College of Arts and Sciences, and Biology major requirements.

Year		FIRST SEMESTER	Hours		SECOND SEMESTER	Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	CHEM 1315	General Chemistry	5
	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	BIOL 1124	Intro Biol: Molecule/Cell/Phys	4	MATH 1743 or MATH 1823	Calculus I for Business, Life and Social Sciences or Calculus and Analytic Geometry I	3
		MATH (Core I)	3	BIOL 1134	Introductory Biology: Evolution, Ecology and Diversity	4
		First Year Experience (Core V)	3	BIOL 1111	Perspectives and Professional Skills in the Biological Sciences	1
		CREDIT HOURS	**16**		**CREDIT HOURS**	**16**
SOPHOMORE	CHEM 1415	General Chemistry (Continued)	5	CHEM 3053	Organic Chemistry I: Biological Emphasis	3
	PHYS 2414 or PHYS 2514	General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors	4	PHYS 2424 or PHYS 2524	General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors	4
	P SC 1113	American Federal Government (Core III)	3		Beginning Language (Core I)	5
	BIOL 3333	Genetics	3	BIOL 2913	Intro to Quantitative Biology	3
				BIOL 3601	Principles of Biological Systems	1
		CREDIT HOURS	**15**		**CREDIT HOURS**	**16**
JUNIOR	CHEM 3152	Organic Chemistry Laboratory: Biological Emphasis	2	BIOL 3103	Principles of Physiology	3
	CHEM 3153	Organic Chemistry II: Biological Emphasis	3		Concentration elective [1]	2-3
	BIOL 3113	Cell Biology	3		Intermediate Language	3
		Beginning Language continued (Core I)	5		World Culture (Core IV)	3
	BIOL 3013	Evolution	3		Arts & Humanities, upper-division (3000-4000-level) outside major (Gen.Ed.)	3
		CREDIT HOURS	**16**		**CREDIT HOURS**	**14**
SENIOR	BIOL 4693	Biological Systems and Analysis	3		Artistic Forms (Core IV)	3
		Arts & Humanities, upper-division (3000-4000-level) outside major (Gen.Ed.)	3		Social Science (Core III)	3
		Western Culture (Core IV)	3		Concentration Elective [1]	3-4
		Concentration Elective [1]	3-4		Choose one of the following elective options:	3-4
		Concentration Elective [1]	3-4		Concentration Elective (3-4 hours) [1]	
					Free Electives (3 hours, upper-division 3000-4000-level)	
		CREDIT HOURS	**15**		**CREDIT HOURS**	**12**

1 Concentration Electives (9-12 hours) with at least one course chosen from each of the following elective groups to include 2 labs: Molecular System, Structure and Function, and Behavioral and Ecological Systems. Approved elective lists will be maintained by the department. Electives to be chosen in consultation with departmental advisor; must include two upper-division laboratory courses. (Independent study, honors reading or honors research cannot count toward laboratory course requirements.)