



2018 - 2019 Major Map

Biological Sciences, BS




School/College: [The College of Liberal Arts and Sciences](#)
LABSCBS

In order to complete the requirements of this program some laboratory courses will be completed in-person at the Tempe Campus. These laboratory courses will be offered during summer. This may impact your financial aid. Financial aid is available to those who apply and qualify, and students may receive funds to help cover costs for each semester of enrollment. The amount of financial aid that a student is eligible for varies depending on prior education experience and other individual factors. [Learn](#) more about summer financial aid and additional ways to cover summer costs.

Term 1 - A 0 - 7 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 281: Conceptual Approaches to Biology for Majors I (SQ)	4	C	<ul style="list-style-type: none"> An SAT, ACT, Accuplacer, IETLS or TOEFL score determines placement into first-year composition courses. ASU 101 or college-specific equivalent First-Year Seminar required of all freshman students.
ENG 101 or ENG 102: First-Year Composition OR			
ENG 105: Advanced First-Year Composition OR	3	C	
ENG 107 or ENG 108: First-Year Composition			
Term hours subtotal:	7		

Term 1 - B 7 - 15 Credit Hours	Hours	Minimum Grade	Notes
ASU 101-UC: The ASU Experience	1		<ul style="list-style-type: none"> Mathematics Placement Assessment score determines placement in mathematics course. View ASU Online first-time freshmen registration information here.
BIO 282: Conceptual Approaches to Biology for Majors II	4	C	
MAT 251: Calculus for Life Sciences (MA)	3	C	
Term hours subtotal:	8		

Term 2 - A 15 - 22 Credit Hours	Hours	Minimum Grade	Notes
CHM 113: General Chemistry I (SQ)	4	C	<ul style="list-style-type: none"> Select your career interest area and play me3@ASU.
ENG 101 or ENG 102: First-Year Composition OR			
ENG 105: Advanced First-Year Composition OR	3	C	
ENG 107 or ENG 108: First-Year Composition			
Term hours subtotal:	7		





Term 2 - B 22 - 29 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
CHM 116: General Chemistry II (SQ)	4	C	<ul style="list-style-type: none"> If interested in health-related professional programs, research the timeline for admissions preparation and general admission requirements.
STP 231: Statistics for Life Science (CS)	3	C	
 Complete BIO 181 AND BIO 182 or BIO 281 AND BIO 282 course(s).			
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	7		



Term 3 - A 29 - 35 Credit Hours	Hours	Minimum Grade	Notes
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		<ul style="list-style-type: none"> Due to lower division prerequisites, pre-health students are encouraged to choose upper division General Studies (HU
Social-Behavioral Sciences (SB) AND Global Awareness (G)	3		

Term hours subtotal: 6

or SB) and CLAS Science and Society courses.

- Review the [Career Guide for ASU Online students](#) to learn about available career planning resources.



Term 3 - B 35 - 42 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 340: General Genetics	4	C	
Literacy and Critical Inquiry (L)	3		
 Complete First-Year Composition requirement.			
 Complete Mathematics (MA) requirement.			
Term hours subtotal:	7		

Term 4 - A 42 - 48 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 345: Evolution	3	C	
CHM 231: Elementary Organic Chemistry (SQ)	3	C	
Term hours subtotal:	6		<ul style="list-style-type: none"> • Develop your professional online presence

Term 4 - B 48 - 55 Credit Hours	Hours	Minimum Grade	Notes
Humanities, Arts and Design (HU)	3		
Elective	4		
Term hours subtotal:	7		<ul style="list-style-type: none"> • Plan for in-person laboratory attendance in Summer. Talk with your academic advisor.

Summer 4 55 - 56 Credit Hours	Hours	Minimum Grade	Notes
CHM 235: Elementary Organic Chemistry Laboratory (SQ)	1	C	
Term hours subtotal:	1		<ul style="list-style-type: none"> • ASU Online students will complete all experiments for the CHM 235 organic chemistry lab at the Tempe Campus of ASU during a one-week session in summer. Lab reports will be completed in later weeks during the same summer term.

Term 5 - A 56 - 63 Credit Hours	Hours	Minimum Grade	Notes
PHY 111: General Physics (SQ) AND PHY 113: General Physics Laboratory (SQ)	4	C	
Elective	3		
Term hours subtotal:	7		<ul style="list-style-type: none"> • Due to lower division prerequisites, pre-health students are encouraged to choose upper division General Studies (HU or SB) and CLAS Science and Society courses. • If interested in health-related professional programs, use ASU's Health Professions Advising to prepare for application.

Term 5 - B 63 - 69 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Additional Major Requirement Course	3-4	C	
Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)	3		
Term hours subtotal:	6-7		<ul style="list-style-type: none"> • Network in your career interest area.

Term 6 - A 69 - 75 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Additional Major Requirement Course	3	C	

CLAS Science and Society Elective	3	C
Term hours subtotal:	6	

- Work with your academic advisor to align your additional major requirement and major elective courses with your career aspirations

Term 6 - B 75 - 81 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Major Laboratory Research Course	1	C	
Upper Division Additional Major Requirement Course	3	C	
Upper Division Elective	2		
★ Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			
Term hours subtotal:	6		

Term 7 - A 81 - 87 Credit Hours	Hours	Minimum Grade	Notes
Upper Division Major Laboratory Research Course	3	C	
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Term hours subtotal:	6		

- Create a first draft **resume**

Term 7 - B 87 - 93 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Major Elective Course	3	C	
Elective	3		
Term hours subtotal:	6		

- Discuss the possibility of in-person laboratory attendance in summer with your academic advisor.

Term 8 - A 93 - 99 Credit Hours	Hours	Minimum Grade	Notes
Upper Division Literacy and Critical Inquiry (L)	3		
Upper Division CLAS Science and Society Elective	3	C	
Term hours subtotal:	6		

- Explore other resources available through ASU's **Career and Professional Development Center** options

Term 8 - B 99 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Major Elective Course	3	C	
Upper Division Elective	3		
Term hours subtotal:	6		

- Gather **professional references**

Term 9 - A 105 - 111 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Additional Major Requirement Course	3	C	
Elective	3		
Term hours subtotal:	6		

Term 9 - B 111 - 117 Credit Hours	Hours	Minimum Grade	Notes
Upper Division Elective	3		
Elective	3		
Term hours subtotal:	6		

- Use Handshake to research **employment opportunities**

Term 10 - A 117 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Additional Major Requirement Course	3	C	
Term hours subtotal:	3		

- All students pursuing a B.S. or B.S.P. degree in the College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at <https://clas.asu.edu/advising-and-academic-services/science-and-society>. At least one of the two courses must be upper division. Students must earn a C or better in the courses, and no more than one of the two can also be used to simultaneously fill a requirement of the major, minor or related area. Science and Society courses cannot also be used to fill the general studies HU, SB, SQ or SG requirements.

Hide Course List(s)/Track Group(s)

Laboratory Research Course	Major Electives	Additional Major Requirements Courses
BIO 321: Introductory Ecology Laboratory	BIO 304: Plants and Civilization	BIO 320: Fundamentals of Ecology
BIO 354: Cell Biology Laboratory	BIO 316: History of Biology: Conflicts and Controversies (H)	BIO 331: Animal Behavior
BIO 361: Animal Physiology Laboratory	BIO 412: Conservation in Practice	BIO 351: Developmental Biology
	BIO 416: Biomedical Research Ethics (L)	BIO 353: Cell Biology
	CHM 435: Medicinal Chemistry	BIO 360: Animal Physiology
	HPS 322: History of Science (HU & H)	MIC 220: Biology of Microorganisms
	MIC 420: Immunology: Molecular and Cellular Foundations	

Notes:

Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

Total College Residency Hrs: 12 minimum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2018 - 2019 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.