













2022 - 2023 Major Map



Biological Sciences (Biology and Society), BS






School/College: The College of Liberal Arts and Sciences
LABSCSBS



Term 1 0 - 15 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 181: General Biology I (SQ)	4	C	<ul style="list-style-type: none"> LIA 101, ASU 101, or other First-Year Seminar required of all first-year students Students transferring General Statistics (STP 226 or PSY 230) will fulfill STP 231 requirement Select your career interest area and play me3@ASU
 LIA 101: Student Success in The College of Liberal Arts and Sciences	1		
CHM 113: General Chemistry I (SQ)	4	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
STP 231: Statistics for Life Science (CS)	3	C	
Term hours subtotal:	15		
Term 2 15 - 32 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 182: General Biology II (SG)	4	C	<ul style="list-style-type: none"> Join a student organization Create a resume & Handshake account with the Career & Professional Development Center Explore Research Opportunities Attend a Pre-Health 101 Session Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.) Students transferring Calculus (MAT 270 or MAT 210) will fulfill MAT 251 requirement
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
CHM 116: General Chemistry II (SQ)	4	C	
MAT 251: Calculus for Life Sciences (MA)	3	C	
Social-Behavioral Sciences (SB) AND Global Awareness (G)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	17		
Term 3 32 - 48 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 340: General Genetics	4	C	<ul style="list-style-type: none"> Pre-health students should take CHM 233 and CHM 237 instead of the elective in this term. See pre-health website for more information. If CHM 233 and 237 are taken, then CHM 234 and 238 must be taken the following semester. It is not recommended to take more than two lab courses in a term. BIO 311 or HPS 340 will fulfill the upper-division Science and Society requirement for The College. Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)
BIO 311: Biology and Society OR HPS 340: Biology and Society	3	C	
Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)	3		
Complete 2 courses: Elective	6		
 Complete First-Year Composition requirement.			
 Complete Mathematics (MA) requirement.			
Term hours subtotal:	16		

- Attend a [Study Abroad 101 Session](#).
- Explore [minors and certificates](#).

Term 4 48 - 63 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 345: Evolution	3	C	<ul style="list-style-type: none"> • Pre-health students should take CHM 234 and CHM 238 instead of electives in this term. See the pre-health website for more information. • If CHM 233 and 237 are taken, then CHM 234 and 238 must be taken the following semester. • Explore or pursue internship opportunities. • Meet with the Career & Professional Development Center to learn how to develop professional skills.
Literacy and Critical Inquiry (L)	3		
Social-Behavioral Sciences (SB)	3		
Complete 2 courses:	6		
Elective			
Term hours subtotal:	15		

Term 5 63 - 78 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Science in Contemporary Society Interface Course	3	C	<ul style="list-style-type: none"> • Pre-health students should take PHY 111 and 113 instead of an elective this term. See the pre-health website for more information. • Meet with your advisor to discuss ways to maximize your remaining time at ASU (i.e. pre-health; 4+1 Masters Programs; study abroad). • Some upper-division Science in Contemporary Society Interface courses require lower-division prerequisites which may be taken as electives. • Explore graduate school or full-time career opportunities.
Upper Division Major Biological Sciences Elective	3	C	
Science and Society Elective	3	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
Elective	3		
Term hours subtotal:	15		

Term 6 78 - 92 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 BIO 307: Research Colloquium: Identifying a Research Question	1	C	<ul style="list-style-type: none"> • Pre-health students should take PHY 112 and 114 instead of electives this term. See the pre-health website for more information.
 BIO 314: Research Colloquium in Biology and Society I	1	C	
 Upper Division Ethics Interface Course	3	C	
Upper Division Literacy and Critical Inquiry (L)	3		
Complete 2 courses:	6		
Elective			
 Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			
Term hours subtotal:	14		

Term 7 92 - 106 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 BIO 484: Internship OR BIO 492: Honors Directed Study OR BIO 495: Undergraduate Research	1	C	<ul style="list-style-type: none"> • Students who complete less than three hours of BIO 484 or BIO 492 or BIO 495 should plan to complete additional elective hours to reach the minimum 120 total hours required for this degree. • BIO 484 or BIO 492 or BIO 495 requires the completion of an individualized instruction form and meeting with a faculty
Upper Division Additional Major Core Elective Courses	3	C	
Upper Division Major Biological Sciences Elective	3	C	
Complete 2 courses:	7		
Elective			
Term hours subtotal:	14		

member before the semester begins. These are positions and research experience secured by the student on their own.

- Meet with your **advisor** to verify remaining degree requirements have been met prior to Term 8.
- Explore or apply for **full-time career opportunities or graduate school**.

Term 8 106 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BIO 414: Research Colloquium in Biology and Society II	1	C	<ul style="list-style-type: none"> • Continue to apply for full-time career opportunities or graduate school.
★ Upper Division History and Philosophy of Science Interface Course	3	C	
Complete 2 courses:	6	C	
Upper Division Major Biological Sciences Elective			
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Upper Division Elective	1		
Term hours subtotal:	14		

- All students pursuing a BS or BSP degree in The College of Liberal Arts and Sciences must complete two courses from the Science and Society list found at <https://thecollege.asu.edu/resources/science-society>. At least one of the two courses must be upper-division and students must earn a C or better in the courses. Both Science and Society courses (i.e., all six credits) may count towards any major, minor, related fields, and ASU General Studies requirements.

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

Science in Contemporary Society Interface Courses	Major Biological Sciences Elective Courses	Additional Major Core Elective Courses
AFR 383: Blacks in Science, Medicine and Public Health	BCH 361: Advanced Principles of Biochemistry	AFR 383: Blacks in Science, Medicine and Public Health
ASB 353: Death and Dying in Cross-Cultural Perspective ((HU or SB) & G)	BIO OR HPS OR MBB OR MIC 3** Elective	ASB 353: Death and Dying in Cross-Cultural Perspective ((HU or SB) & G)
ASM 345: Disease and Human Evolution	BIO OR HPS OR MBB OR MIC 4** Elective	ASB 357: Society, Drugs and Health (SB & G)
BIO 302: Cancer--Mother of All Diseases (L)		ASM 345: Disease and Human Evolution
BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)		BIO 302: Cancer--Mother of All Diseases (L)
BIO 317: History of Science II (HU & H) or HPS 323: History of Science II (HU & H)		BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)
BIO 322: Conservation of Biodiversity		BIO 312: Bioethics (HU) or PHI 320: Bioethics (HU)
BIO 323: Ecosystem Restoration and Management		BIO 316: History of Biology: Conflicts and Controversies (H) or HPS 330: History of Biology: Conflicts and Controversies (H)
BIO 412: Conservation in Practice or SOS 412: Conservation in Practice		BIO 322: Conservation of Biodiversity
MIC 314: HIV/AIDS: Science, Behavior, and Society or SSH 314: HIV/AIDS: Science, Behavior, and Society		BIO 323: Ecosystem Restoration and Management
		BIO 324: Environmental Ethics (HU) or PHI 310: Environmental Ethics (HU)

WST 340: Gender, Science, and Technology (SB)	BIO 412: Conservation in Practice or SOS 412: Conservation in Practice
WST 360: Women as Healers (SB & G)	BIO 416: Biomedical Research Ethics (L) or HPS 410: Biomedical Research Ethics (L)
	HPS 313: Probability, Evidence, and Decision or PHI 313: Probability, Evidence, and Decision
	HPS 314: Philosophy of Science (HU) or PHI 314: Philosophy of Science (HU)
	HPS 322: History of Science I (HU & H)
	HPS 323: History of Science II (HU & H) or BIO 317: History of Science II (HU & H)
	HPS 331: History of Medicine (HU & H) or BIO 318: History of Medicine (HU & H)
	HPS 336: Exploration and Science (SB & H)
	MIC 314: HIV/AIDS: Science, Behavior, and Society or SSH 314: HIV/AIDS: Science, Behavior, and Society
	WST 340: Gender, Science, and Technology (SB)
	WST 360: Women as Healers (SB & G)

History and Philosophy of Science Interface Courses	Ethics Interface Courses
ASB 357: Society, Drugs and Health (SB & G)	BIO 312: Bioethics (HU) or PHI 320: Bioethics (HU)
BIO 316: History of Biology: Conflicts and Controversies (H) or HPS 330: History of Biology: Conflicts and Controversies (H)	BIO 324: Environmental Ethics (HU) or PHI 310: Environmental Ethics (HU)
HPS 313: Probability, Evidence, and Decision or PHI 313: Probability, Evidence, and Decision	BIO 416: Biomedical Research Ethics (L) or HPS 410: Biomedical Research Ethics (L)
HPS 314: Philosophy of Science (HU) or PHI 314: Philosophy of Science (HU)	
HPS 322: History of Science I (HU & H)	
HPS 323: History of Science II (HU & H) or BIO 317: History of Science II (HU & H)	
HPS 331: History of Medicine (HU & H) or BIO 318: History of Medicine (HU & H)	
HPS 336: Exploration and Science (SB & H)	

Notes:

- First-Year Composition: All students are placed in ENG 101 unless submission of SAT, ACT, Accuplacer, IELTS, or TOEFL score, or college-level transfer credit or test credit equivalent to ASU's first-year composition course(s), determine otherwise. Students on Polytechnic, Downtown Phoenix and West Campuses are encouraged to complete the Directed Self-Placement survey to choose the first-year composition option they believe best suits their needs. Visit: <https://cisa.asu.edu/DSP>
- Mathematics Placement Assessment score determines placement in first mathematics course.

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 2022 - 2023 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.