













2022 - 2023 Major Map

Biological Sciences (Conservation Biology and Ecology), BS



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




Term 1 - A 0 - 8 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 ASU 101-LA: The ASU Experience	1		<ul style="list-style-type: none"> ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students
 BIO 181: General Biology I (SQ)	4	C	
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:	8		
Term 1 - B 8 - 15 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 182: General Biology II (SG)	4	C	<ul style="list-style-type: none"> View ASU Online first-year student registration information here. Create a resume and Handshake account with the Career & Professional Development Center to explore research or internship opportunities Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.) Join a student organization
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 - 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. Students transferring General Statistics (STP 226 or PSY 230) will fulfill STP 231 requirement
STP 231: Statistics for Life Science (CS)	3	C	
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. 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
MAT 251: Calculus for Life Sciences (MA)	3	C	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	7		

Term 3 - A 29 - 35 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 320: Fundamentals of Ecology	3	C	<ul style="list-style-type: none"> It is not recommended to take more than two lab courses in a term. Review the Career Guide for ASU Online students to learn about available career planning resources.
Physical Science Requirement Course	3-4	C	
Term hours subtotal:	6-7		









Term 3 - B 35 - 41 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
Science and Society Elective	3	C	<ul style="list-style-type: none"> Meet with the Career & Professional Development Center to learn how to develop professional skills
Literacy and Critical Inquiry (L)	3		
 Complete First-Year Composition requirement.			
 Complete Mathematics (MA) requirement.			
Term hours subtotal:	6		

Term 4 - A 41 - 47 Credit Hours	Hours	Minimum Grade	Notes
Humanities, Arts and Design (HU) AND Global Awareness (G)	3		<ul style="list-style-type: none"> BIO 322 must be completed by Term 5A; however, students can choose to take it this term Due to lower-division prerequisites, pre-health students are encouraged to choose upper-division General Studies (HU or SB) and The College Science and Society courses. Develop your professional online presence
Social-Behavioral Sciences (SB)	3		
Term hours subtotal:	6		

Term 4 - B 47 - 54 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 340: General Genetics	4	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
Term hours subtotal:	7		

Term 5 - A 54 - 60 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 BIO 322: Conservation of Biodiversity	3	C	<ul style="list-style-type: none"> BIO 322 will be used to satisfy the Upper Division Science and Society requirement for The College If interested in health-related professional programs, use ASU's Health Professions Advising to prepare for application. Meet with your advisor to discuss ways to maximize your remaining time at ASU (i.e. pre-health; 4+1 Masters Programs; study abroad) Explore graduate school or full-time career opportunities
 BIO 345: Evolution	3	C	
Term hours subtotal:	6		

Term 5 - B 60 - 66 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Human Dimensions of Conservation and Ecology Course	3	C	<ul style="list-style-type: none"> Network in your career interest area.
Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)	3		
Term hours subtotal:	6		

Term 6 - A 66 - 72 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Conservation Biology and Ecology Field Methods Course	3	C	<ul style="list-style-type: none"> Students wanting to use BIO 484 internship to fulfill the Conservation Biology and Ecology Field Methods requirement must seek faculty approval first. Work with your academic advisor to align your additional major requirements and major elective courses with your career aspirations Use Handshake to research employment opportunities
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Term hours subtotal:	6		
Term 6 - B 72 - 78 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
Upper Division Elective	3		
Elective	3		
 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 78 - 84 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Advanced Ecology Course	3	C	<ul style="list-style-type: none"> 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
Elective	3		
Term hours subtotal:	6		
Term 7 - B 84 - 90 Credit Hours	Hours	Minimum Grade	Notes
Upper Division Literacy and Critical Inquiry (L)	3		
Elective	3		
Term hours subtotal:	6		
Term 8 - A 90 - 97 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 Upper Division Advanced Human Dimensions of Conservation and Ecology Course	3	C	<ul style="list-style-type: none"> Explore other resources available through ASU's Career and Professional Development Center
Upper Division Elective	4		
Term hours subtotal:	7		
Term 8 - B 97 - 106 Credit Hours	Hours	Minimum Grade	Notes
Quantitative & Spatial Analysis Course	3-4	C	<ul style="list-style-type: none"> Gather professional references
Complete 2 courses:	6		
Elective			
Term hours subtotal:	9-10		
Term 9 - A 106 - 113 Credit Hours	Hours	Minimum Grade	Notes
Upper Division Elective	4		<ul style="list-style-type: none"> Continue to apply for full-time career opportunities or graduate school
Elective	3		
Term hours subtotal:	7		
Term 9 - B 113 - 120 Credit Hours Necessary course signified by		Minimum	

★	Hours	Grade	Notes
★ Upper Division Advanced Ecology, Biodiversity, Field or Research Course	3-4	C	
Elective	4		
Term hours subtotal:		7-8	

- 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)

Human Dimensions of Conservation and Ecology	Conservation Biology and Ecology Field Methods	Physical Science Requirement Courses
BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)	BIO 407: Novel Ecosystems	CHM 231: Elementary Organic Chemistry (SQ) AND CHM 235: Elementary Organic Chemistry Laboratory (SQ)
BIO 324: Environmental Ethics (HU) or PHI 310: Environmental Ethics (HU)	BIO 410: Techniques in Conservation Biology and Ecology (L)	GIS 205: Geographic Information Science I (CS)
BIO 412: Conservation in Practice	BIO 484: Internship	GIS 211: Geographic Information Science II (CS)
	BIO 494: Discovering Biodiversity	GLG 101: Introduction to Geology I (Physical) (SQ) AND GLG 103: Introduction to Geology I: Laboratory (SQ)
		GLG 327: Earth's Critical Zone or SOS 374: Earth's Critical Zone
		GPH 111: Introduction to Physical Geography (SQ)
		PHY 101: Introduction to Physics (SQ) or PHY 111: General Physics (SQ) AND PHY 113: General Physics Laboratory (SQ)
Quantitative & Spatial Analysis Courses	Advanced Ecology	Advanced Human Dimensions of Conservation and Ecology
BIO 415: Statistical Models for Biology (CS)	BIO 422: Ecosystem Ecology	BIO 304: Plants and Civilization (L) or ENV 302: Plants and Civilization (L)
GIS 311: Geographic Information Science III (CS)	BIO 423: Population and Community Ecology	BIO 324: Environmental Ethics (HU) or PHI 310: Environmental Ethics (HU)
GIS 470: Advanced Statistics for Geography and Planning (CS)		BIO 394: The Global Water Classroom
GIS 471: Spatial Statistics for Geography and Planning		BIO 494: Society and Natural Resource Management
SOS 212: Systems, Dynamics and Sustainability		PRM 370: Public Lands Management
		PRM 380: Wilderness and Parks in America (SB & H)
		SOS 310: Equity, Justice and Sustainability
		SOS 321: Policy and Governance in Sustainable Systems
		SOS 325: The Economics of Sustainability

Advanced Ecology, Biodiversity, Field or
Research Course

ASM 443: Primatology

BIO 331: Animal Behavior

BIO 370: Vertebrate Zoology

BIO 385: Comparative Invertebrate Zoology

BIO 430: Plant Geography or GPH 422:
Plant Geography

BIO 495: Undergraduate Research

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.