









2024 - 2025 Major Map

Biology, BS

School/College: New College of Interdisciplinary Arts and Sciences
ASLSCBS

Term 1 0 - 15 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 181: General Biology I (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> MAT 210 or higher-level (MATH) course accepted. MAT 251 recommended. Students considering graduate school or research may consider the MAT 270 and MAT 271 calculus sequence as an alternative. This may require more than 120 credit hours to complete the degree. ASU 101 or college-specific First-Year Seminar required of all first-year students. NEW 101 satisfies this requirement. IAS 300 (three credit hours) is required for all transfer students in New College. Select your Career Interest Community and play me3@ASU. Activate your Handshake account and build out your profile.
CHM 113: General Chemistry I (SCIT OR 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	
MAT 210: Brief Calculus (MATH OR MA) OR MAT 251: Calculus for Life Sciences (MATH OR MA)	3	C	
NEW 101: The ASU New College Experience OR IAS 300: Career Strategies and Personal Resilience (L or SB)	1-3		
Term hours subtotal:	15-17		
Term 2 15 - 30 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 182: General Biology II (SCIT OR SG)	4	C	<ul style="list-style-type: none"> Create a first draft resume. Join a student club or professional organization. Secure a part-time job or volunteer experience.
CHM 116: General Chemistry II (SCIT OR 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 226: Elements of Statistics (QTRS OR CS)	3	C	
Elective	1		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	15		
Term 3 30 - 44 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 PHY 111: General Physics (SCIT OR SQ) AND PHY 113: General Physics Laboratory (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> Develop your research skills. Develop your professional skills. Interested in pre-professional pathways? Explore our pre-health and pre-law websites.
CHM 233: General Organic Chemistry I AND CHM 237: General Organic Chemistry Laboratory I	4	C	
Humanities, Arts and Design (HUAD)	3		
Social and Behavioral Sciences (SOBE)	3		
 Complete First-Year Composition requirement.			
Complete Mathematics (MATH) requirement.			
Term hours subtotal:	14		
		Minimum	

Term 4 44 - 60 Credit Hours Critical course signified by ⚠	Hours	Grade	Notes
⚠ PHY 112: General Physics (SCIT OR SQ) AND PHY 114: General Physics Laboratory (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> Explore an internship, an IGLE international experience, or ASU Study Abroad.
CHM 234: General Organic Chemistry II AND CHM 238: General Organic Chemistry Laboratory II	4	C	
Global Communities, Societies and Individuals (GCSI)	3		
Humanities, Arts and Design (HUAD)	3		
Elective	2		
⚠ Complete CHM 113 AND CHM 116 course(s).			
Term hours subtotal:	16		

Term 5 60 - 76 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ LSC 347: Fundamentals of Genetics AND LSC 348: Fundamentals of Genetics Laboratory	4	C	<ul style="list-style-type: none"> See note below regarding Upper Division Related Area Elective requirements. Thinking about graduate school? Consider registering for a grad school test prep course and explore accelerated master's degrees. Develop your professional online presence.
Upper Division Related Area Elective	3	C	
Governance and Civic Engagement (CIVI)	3		
Sustainability (SUST)	3		
Upper Division Elective	3		
Term hours subtotal:	16		

Term 6 76 - 90 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BIO 320: Fundamentals of Ecology AND LSC 322: Fundamentals of Ecology Laboratory	4	C	<ul style="list-style-type: none"> Use Handshake to research employment opportunities. Complete an in person or virtual practice interview.
★ BIO 353: Cell Biology AND BIO 354: Cell Biology Laboratory	4	C	
American Institutions (AMIT)	3		
Elective	3		
Term hours subtotal:	14		

Term 7 90 - 106 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Upper Division Biology Distribution Course	4	C	<ul style="list-style-type: none"> Students must select a minimum of one lecture or lecture/lab combined course from each one of the three distribution areas: Cellular, Molecular, and Physiological Biology; Integrative Systems Ecology; Organismal Biology. See note below regarding Upper Division Related Area Elective requirement. Gather professional references.
Upper Division Global and Civic Engagement Requirement: satisfied through completion of 6 credits of upper-division courses with a Global Communities, Societies and Individuals (GCSI) or Governance and Civic Engagement (CIVI) designation, in addition to the courses used to meet the university General Studies requirements; or completion of 3 credits from an ASU-approved Global Education program. Adjustment to upper-division and elective hours is required if a lower-division Global Education course is used.	3	C	
Upper Division Related Area Elective	3	C	
Upper Division Elective	3		
Elective	3		
Term hours subtotal:	16		

Term 8 106 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Complete 2 courses:	8	C	<ul style="list-style-type: none"> Students must select a minimum of one lecture or lecture/lab combined course from each one of the three distribution areas: Cellular, Molecular,
Upper Division Biology Distribution Course			
Upper Division Global and Civic Engagement Requirement: satisfied through completion of 6 credits of upper-division courses with a Global Communities, Societies and Individuals (GCSI) or Governance and Civic Engagement (CIVI) designation, in addition to the courses used to meet the university General Studies	3	C	

requirements; or completion of 3 credits from an ASU-approved Global Education program. Adjustment to upper-division and elective hours is required if a lower-division Global Education course is used.

Upper Division Elective

3-0

Term hours subtotal: 14-11

and Physiological Biology; Integrative Systems Ecology; Organismal Biology.

- Apply for full-time career opportunities.

- Students must complete a minimum of one lecture or lecture/lab combined course from each of the three Biology Distribution Areas: Cellular, Molecular and Physiological Biology; Integrative Systems Ecology; and Organismal Biology.
- Upper division related area electives are acceptable if designated for Biology (or related) majors from the following subject codes: BCH, BIO, ENV, LSC, MIC, PLB, or PTX with BIO 182 as a prerequisite. Courses taken outside of the distribution areas that do not require BIO 182 as a prerequisite will be used towards general university elective requirements. Special Topics 394/494 can be used with prior approval. Up to three credit hours of experiential learning (388, 484, 486, 492, 493, 495, 499) from the above subject codes may be applied to this requirement. Seek academic advising prior to enrollment.

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

Biology Distribution: Cellular, Molecular and Physiological Biology	Biology Distribution: Integrative Systems Ecology	Biology Distribution: Organismal Biology
BCH 371: Modern Concepts in Biochemistry AND BCH 372: Modern Concepts in Biochemistry Laboratory	BIO 345: Evolution	BIO 360: Animal Physiology AND LSC 359: Animal Physiology Laboratory
BIO 431: Genes, Development, and Evolution (L)	BIO 412: Conservation in Practice	BIO 370: Vertebrate Zoology
BIO 443: Applied Molecular Genetics and Genomics AND LSC 447: Molecular Genetics Laboratory	BIO 422: Ecosystem Ecology	BIO 385: Comparative Invertebrate Zoology
LSC 494: Molecular Biology or FOR 494: Molecular Biology	BIO 438: Marine Biology	BIO 474: Herpetology
PTX 301: Basics of Pharmacology and Toxicology	ENV 410: Soil Science	ENV 394: Animal Behavior in a Changing Environment or LSC 394: Animal Behavior in a Changing Environment
PTX 432: Fundamentals of Pharmacology or LSC 432: Fundamentals of Pharmacology	LSC 362: The Human Environment	MIC 443: The Microbial Universe AND MIC 444: The Microbial Universe Laboratory
	LSC 434: Marine Ecology	PLB 302: Plants and Civilization
	PLB 300: Plant Diversity and Evolution (L or SG)	PLB 308: Plant Physiology
		PLB 310: The Flora of Arizona
Upper Division Related Area Electives		
BCH Upper Division Elective		
BIO Upper Division Elective		
ENV Upper Division Elective		
LSC Upper Division Elective		
MIC Upper Division Elective		
PLB Upper Division Elective		
PTX Upper Division Elective		

- **Total Hours:** 120
- **Upper Division Hours:** 45 minimum
- University Undergraduate Graduation Requirements

Notes:

Mathematics Placement Assessment score determines placement in first mathematics course.

General Studies designations listed next to courses on the major map were valid for the 2024 - 2025 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.