











2024 - 2025 Major Map

Biology, BA

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

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 170 or higher-level (MATH) course accepted. • 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 170: Precalculus (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 - 29 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	
Quantitative Reasoning (QTRS) (STP 226 recommended)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	14		
Term 3 29 - 43 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 Cognate Requirement Set A OR Cognate Requirement Set B	4	C	<ul style="list-style-type: none"> • Students will complete one of two sets of Cognate coursework over two terms. Choose either Set A or B below. • CHM 231 & 235 is the minimum organic chemistry requirement for this degree. Students interested in graduate/medical/professional school may consider the two semester organic chemistry sequence (CHM 233 & 237 and CHM 234 & 238). • Develop your research skills. • Develop your professional skills. • Interested in pre-professional pathways? Explore our pre-health and pre-law websites.
CHM 231: Elementary Organic Chemistry (SCIT OR SQ) AND CHM 235: Elementary Organic Chemistry Laboratory (SCIT OR SQ) OR 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		
Term 4 43 - 60 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes

❖ Cognate Requirement Set A OR Cognate Requirement Set B	4	C
Global Communities, Societies and Individuals (GCSI)	3	
Humanities, Arts and Design (HUAD)	3	
Elective	3	
Elective (CHM 234 recommended)	3	
Elective (CHM 238 recommended)	1	
❖ Complete CHM 113 and CHM 116 course(s).		
Term hours subtotal:	17	

- Students will complete the remaining option in their chosen set of Cognate coursework.
- If students plan to apply to a graduate/medical/professional school and completed CHM 233 and CHM 237 in Term 3, then they should take CHM 234 and CHM 238 in Term 4 (C or better required) instead of electives.
- Students who elected to take CHM 231 and CHM 235 in Term 3 should take four credit hours of electives in Term 4.
- Explore an **internship**, an **IGLE international experience**, or **ASU study abroad**.

Term 5 60 - 75 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ LSC 347: Fundamentals of Genetics	3	C	
Upper Division Biology Electives	3	C	
Governance and Civic Engagement (CIVI)	3		
Sustainability (SUST)	3		
Upper Division Elective	3		
Term hours subtotal:	15		

- See note below regarding Upper Division Biology Electives requirement.
- Thinking about graduate school? Consider registering for a grad school **test prep course** and explore **accelerated master's degrees**.
- Develop your **professional online presence**.

Term 6 75 - 90 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ BIO 353: Cell Biology	3	C	
BIO 320: Fundamentals of Ecology	3	C	
American Institutions (AMIT)	3		
Complete 2 courses:	6		
Upper Division Elective			
Term hours subtotal:	15		

- Use Handshake to research **employment opportunities**.
- Complete an in person or virtual **practice interview**.

Term 7 90 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Complete 2 courses:	6	C	
Upper Division Biology Electives			
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	
Complete 2 courses:	6		
Elective			
Term hours subtotal:	15		

- See note below regarding Upper Division Biology Electives requirement.
- Gather **professional references**.

Term 8 105 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ Complete 2 courses:	6	C	
Upper Division Biology Electives			
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			

- See note below regarding Upper Division Biology Electives requirement.
- Apply for **full-time career opportunities**.

the courses used to meet the university General Studies requirements; 3 C
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.

Complete 2 courses:

Upper Division Elective

6-3

Term hours subtotal: 15-12

- 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 prefixes may be applied to this requirement. Seek academic advising prior to enrollment.

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

Upper Division Biology Electives	Cognate Requirement Set A	Cognate Requirement Set B
BCH 371: Modern Concepts in Biochemistry AND BCH 372: Modern Concepts in Biochemistry Laboratory	GLG 108: Water Planet (SCIT OR SQ) or GLG 101: Introduction to Geology I (Physical) (SCIT OR SQ) AND GLG 103: Introduction to Geology I: Laboratory (SCIT OR SQ)	PHY 111: General Physics (SCIT OR SQ) AND PHY 113: General Physics Laboratory (SCIT OR SQ)
BCH Upper Division Elective		PHY 112: General Physics (SCIT OR SQ) AND PHY 114: General Physics Laboratory (SCIT OR SQ)
BIO 306: Modes of Biological Thought (L)	PHY 101: Introduction to Physics (SCIT OR SQ)	
BIO 331: Animal Behavior		
BIO 345: Evolution		
BIO 360: Animal Physiology AND LSC 359: Animal Physiology Laboratory		
BIO 370: Vertebrate Zoology		
BIO 385: Comparative Invertebrate Zoology		
BIO 412: Conservation in Practice		
BIO 422: Ecosystem Ecology		
BIO 431: Genes, Development, and Evolution (L)		
BIO 438: Marine Biology		
BIO 443: Applied Molecular Genetics and Genomics		
BIO 474: Herpetology		
BIO 495: Undergraduate Research		
BIO Upper Division Elective		
ENV 394: Animal Behavior in a Changing Environment or LSC 394: Animal Behavior in a Changing Environment		
ENV 410: Soil Science		
ENV Upper Division Elective		
FOR 414: Fundamentals of Forensic Entomology		

LSC 362: The Human Environment

LSC 363: Genes, Race, Gender, and Society

LSC 369: Biology of Human Sexuality

LSC 388: STEM Research Fundamentals

LSC 434: Marine Ecology

LSC 484: Internship

LSC 492: Honors Directed Study

LSC 493: Honors Thesis (L) or BIO 492:
Honors Directed Study or BIO 493: Honors
Thesis (L)

LSC 494: Molecular Biology or FOR 494:
Molecular Biology

LSC 499: Individualized Instruction or BIO
499: Individualized Instruction

LSC Upper Division Elective

MIC 443: The Microbial Universe AND
MIC 444: The Microbial Universe
Laboratory

MIC Upper Division Elective

PLB 300: Plant Diversity and Evolution (L
or SG)

PLB 302: Plants and Civilization

PLB 308: Plant Physiology

PLB 310: The Flora of Arizona

PLB Upper Division Elective

PTX 301: Basics of Pharmacology and
Toxicology

PTX 432: Fundamentals of Pharmacology or
LSC 432: Fundamentals of Pharmacology

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.