










2023 - 2024 Major Map



Applied Biological Sciences, BS



School/College: College of Integrative Sciences and Arts
TSABSABS




Term 1 0 - 14 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 BIO 181: General Biology I (SQ)	4	C	<ul style="list-style-type: none"> ASU 101 or college-specific equivalent First-Year Seminar required of all first-year students Select your Career Interest Communities and play me3@ASU.
ASU 101-CLS: The ASU Experience	1		
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 251: Calculus for Life Sciences (MA)	3	C	
Social-Behavioral Sciences (SB) AND Global Awareness (G)	3		
Term hours subtotal:	14		


Term 2 14 - 29 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 club or professional organization.
 CHM 113: General Chemistry I (SQ)	4	C	
ABS 100: Discovering the Professions	1	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	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
Term hours subtotal:	15		

Term 3 29 - 43 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 116: General Chemistry II (SQ)	4	C	<ul style="list-style-type: none"> Students considering graduate school or health professions should complete the PHY 111/113 and PHY 112/114 sequence. All other students will complete PHY 101 and elective hours. Secure a part-time job or volunteer experience.
PHY 101: Introduction to Physics (SQ) OR PHY 111: General Physics (SQ) AND PHY 113: General Physics Laboratory (SQ)	4	C	
Applied Biological Sciences Track	3	C	
Humanities, Arts and Design (HU)	3		
 Complete Mathematics (MA) requirement.			
Term hours subtotal:	14		

Term 4 43 - 59.5 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CHM 231: Elementary Organic Chemistry (SQ) AND CHM 235: Elementary Organic Chemistry Laboratory (SQ) OR CHM 233: General Organic Chemistry I AND CHM 237: General Organic Chemistry Laboratory I	4	C	<ul style="list-style-type: none"> Students considering graduate school or health professions should complete the following: CHM 233 and CHM 237, and CHM 234 and CHM 238 (instead of CHM 231 and CHM 235). Students considering graduate school or health professions should complete PHY 112 and 114 in term 4 as part of their electives.
ABS 200: Building Your Professional Self	.5	C	
Literacy and Critical Inquiry (L)	3		
Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)	3		
<i>Complete 2 courses:</i> Elective	6		
Term hours subtotal:		16.5	

Term 5 59.5 - 75 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 ABS 370: Ecology	3	C	<ul style="list-style-type: none"> Students considering graduate school or health professions should complete CHM 234 and CHM 238 as part of their electives in this term. Connect with faculty to seek opportunities for research. Use Handshake to research employment opportunities.
ABS 300: Career Competencies and Skills	.5	C	
Applied Biological Sciences Track	3	C	
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Upper Division Literacy and Critical Inquiry (L)	3		
Elective	3		
Term hours subtotal:		15.5	

Term 6 75 - 90 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 ABS 311: Molecular and Cellular Biology OR ABS 314: Applied Plant Physiology OR BIO 360: Animal Physiology	3	C	
Upper Division Applied Biological Sciences Track	3	C	
Upper Division Elective	3		
<i>Complete 2 courses:</i> Elective	6		
 Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).			
Term hours subtotal:		15	

Term 7 90 - 104 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
--	-------	---------------	-------

★ ABS 350: Applied Statistics (CS) OR STP 420: Introductory Applied Statistics (CS)	3	C
★ ABS 490: Applied Biological Sciences Seminar	1	C
★ BIO 340: General Genetics	4	C
★ Upper Division Applied Biological Sciences Track	3	C
Elective	3	
Term hours subtotal:	14	

- Gather professional references.
- Apply for full-time career opportunities.

Term 8 104 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
---	-------	---------------	-------

★ Complete 2 courses: Upper Division Applied Biological Sciences Track	6	C
Complete 3 courses: Upper Division Elective	10	
Term hours subtotal:	16	

- Students select one of two Applied Biological Sciences Tracks and complete 18 hours from within that track.

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

Applied Biological Sciences Health Track	Applied Biological Sciences General Biology Track
ABS 302: Ethical and Policy Issues in Biology	ABS Elective
ABS 312: Structure and Function	BIO Elective
ABS 318: Unseen Life on Earth	BCH Elective
ABS 355: Ecology and Adaptations of Vertebrates	MIC Elective
ABS 394: Food and Human Health	
ABS 394: Medicine and Culture	
ABS 417: Comparative Immunology	
ABS 484: Internship	
ABS 494: Anatomy Practicum	
ABS 494: Emerging Infections & Epidemics	
ABS 494: Natural Products & Drug Discovery	
BCH 361: Advanced Principles of Biochemistry AND BCH 367: Elementary Biochemistry Laboratory	
BIO 201: Human Anatomy and Physiology I (SG)	

BIO 202: Human Anatomy and
Physiology II (SG)

BIO 351: Developmental Biology

MIC 205: Microbiology (SG) AND MIC 206:
Microbiology Laboratory (SG)

SPA 118: Basic Spanish for Health Care
Professionals

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.

Students must complete a minimum of 12 credit hours of science courses offered by the College of Integrative Sciences and Arts. Select from ABS, CHM, BIO, PHY, and MIC prefixes.

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

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 2023 - 2024 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.