











2024 - 2025 Major Map

Applied Biological Sciences (Secondary Education in Biology), BS

School/College: College of Integrative Sciences and Arts
TSABSSBS

Term 1 0 - 14 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"> 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	3	C	
ENG 107 or ENG 108: First-Year Composition			
MAT 251: Calculus for Life Sciences (MATH OR MA)	3	C	
Humanities, Arts and Design (HUAD)	3		
Term hours subtotal:	14		
Term 2 14 - 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"> Join a student club or professional organization.
 CHM 113: General Chemistry I (SCIT OR 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	3	C	
ENG 107 or ENG 108: First-Year Composition			
SPE 222: Orientation to Education of Exceptional Children (CIVI OR SB & C)	3	C	
 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 (SCIT OR SQ)	4	C	<ul style="list-style-type: none"> Secure a part-time job or volunteer experience. Apply for an Identity Verified Print (IVP) DPS fingerprint card, required by state law for participation in internships in 6-12th grade schools.
MIC 205: Microbiology (SCIT OR SG) AND MIC 206: Microbiology Laboratory (SCIT OR SG)	4	C	
American Institutions (AMIT)	3		
Global Communities, Societies and Individuals (GCSI)	3		
 Complete Mathematics (MATH) requirement.			
Term hours subtotal:	14		
Term 4 43 - 59.5 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
PHY 101: Introduction to Physics (SCIT OR SQ) OR PHY 111: General Physics (SCIT OR SQ) AND PHY 113: General Physics Laboratory (SCIT OR 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, using PHY 112/114 in place of electives. All other students will complete PHY 101. Meet with a Teachers College advisor early in the semester to discuss enrollment in
ABS 200: Building Your Professional Self	.5	C	
BLE 220: Foundations of Structured English Immersion (HUAD OR L)	3	C	

Sustainability (SUST)	3
Complete 2 courses:	
Elective	6
Term hours subtotal:	16.5

upper division education program courses and required internships in upcoming semesters. You will need to submit an IVP fingerprint clearance card to Teachers College. Upper division education courses will be taught in Tempe, OR may also be available on Zoom. They are not taught in person at Poly.

- GCU 113 is recommended as an elective since it satisfies the US and AZ constitution requirement for teacher certification.
- BLE 220 satisfies the requirement for a Structured English Immersion Endorsement (For Certified Teachers). This endorsement authorizes the holder to teach one or more English language learners in the area they are appropriately certified.

Term 5 59.5 - 75 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ ABS 350: Applied Statistics (QTRS OR CS)	3	C	
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	
★ TEL 310: Instructional Design and Planning: Instructional Thought and Action	4	C	
ABS 300: Career Competencies and Skills	.5	C	
TEL 318: Instructional Thought and Action: Assessment for Learning	3	C	
TEL 355: Internship: Initial	1	C	
Minimum 2.25 GPA ASU Cumulative.			
Term hours subtotal:	15.5		

- Students considering graduate school or health professions should complete the Organic Chemistry Sequence of both CHM 233/237 and CHM 234/238 sequence, using CHM 234/238 in place of electives. All other students will complete CHM 231/235.
- During your clinical experience internships, you will work alongside a lead teacher in a 6-12th grade classroom. Reliable transportation is required to get to school sites in terms 5-8.
- Connect with faculty to seek opportunities for **research**.

Term 6 75 - 92 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	
★ ABS 370: Ecology	3	C	
★ SED 482: Science Teaching Methods for Secondary Schools I	3	C	
★ TEL 317: Instructional Thought and Action: Learning Environment and Management	3	C	
★ TEL 366: Internship: Intermediate	1	C	
ABS 207: Applied Plant Taxonomy OR ABS 355: Ecology and Adaptations of Vertebrates OR BCH 361: Advanced Principles of Biochemistry	3		
Elective	1		
Minimum 2.25 GPA ASU Cumulative.			
Term hours subtotal:	17		

- Use Handshake to research **employment opportunities**.
- Meet with a Mary Lou Fulton Teachers College Advisor with any questions related to education course requirements.

Term 7 92 - 108 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ ABS 490: Applied Biological Sciences Seminar	1	C	
★ BIO 340: General Genetics	4	C	
★ TEL 332: Disciplinary Literacy Methods	3	C	

- Gather **professional references**.
- Apply for **full-time career opportunities**.
- Students seeking teacher certification must pass required **educator exams**. Please speak

★ TEL 477: Internship: Advanced	2	C
BIO 480: Methods of Teaching Biology	3	C
Social and Behavioral Sciences (SOBE)	3	
Minimum 2.25 GPA ASU Cumulative.		
Term hours subtotal:	16	

with your Teachers College advisor to plan appropriately.

Term 8 108 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
★ TEL 488: Student Teaching	11	C	<ul style="list-style-type: none"> Your student teaching residency requires a full-time commitment in a 6-12th grade classroom for the semester.
TEL 471: Professional Educator Series: The Principled Educator	1		
Minimum 2.25 GPA ASU Cumulative.			
Term hours subtotal:	12		

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

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

Notes:

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.

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.