

**Major Map: Secondary Education (Biological Sciences) –
Bachelor of Arts in Education (B.A.E.)**
College of Teacher Education and Leadership (CTEL)
Catalog Year: 2009-2010

			Completed ATP: ☐ Yes ☐ No		Completed AGEC: ☐ Yes ☐ No	
Course Subject and Title (courses in bold/shading are critical)	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Tracking Notes	
TERM ONE: 0-15 CREDIT HOURS						
ASU 101: The ASU Experience	1	☐		Grade of C	- ASU 101 is for ASU freshman students only. Not required of transfer students - An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses - ASU Math Placement Exam score determines placement in Mathematics course - Minimum 2.50 ASU cumulative and critical content area course GPA recommended	
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C		
MAT 170: Precalculus or higher (MA)	3	☐		Grade of C		
BIO 187: General Biology I (SG)	4	☐		Grade of C		
CHM 113: General Chemistry I (SQ)	4	☐		Grade of C		
TERM TWO: 16-30 CREDIT HOURS						
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	Minimum 2.50 ASU cumulative and critical content area course GPA recommended	
BIO 188: General Biology II (SQ)	4	☐		Grade of C		
SPE 222: Orientation Education of the Exceptional Child (SB, C)	3	☐		Grade of C		
CHM 116: General Chemistry II (SQ)	4	☐		Grade of C		
EDT 180 or EDT 321: Computer Literacy (CS):	3	☐				
TERM THREE: 31-45 CREDIT HOURS						
BIO 360: Animal Physiology OR LSC 358/395: Animal Physiology & Lab OR PBL/LSC 308: Plant Biology	3-4	☒		Grade of C	- Complete First-Year Composition requirement: ENG 101 & 102 OR ENG 107 & 108 or 105 - Complete BIO 187, BIO 188 and two (2) additional required BIO courses. - Minimum 2.50 ASU cumulative and critical content area course GPA required - MILESTONE: Submit intent to progress form (online)	
BIO 320 or LSC 320/322: Fundamentals of Ecology and Lab	3	☒		Grade of C		
Humanities, Fine Arts, and Design (HU) with Historical (H) (HIS 103/HST 109 recommended to fulfill US Constitution for certification)	3	☐		Grade of C		
Humanities, Fine Arts, and Design (HU) with Awareness Area – Global (G):	3	☐				
Literacy and Critical Inquiry (L):	3	☐				
TERM FOUR: 46-60 CREDIT HOURS						
MIC 205/206: Microbiology and Lab OR MIC 220/206: Biology of Microorganisms and Lab OR LSC 353/355: Cell Biology and Lab	4	☐		Grade of C	- Complete all five (5) BIO specialization critical courses (BIO 187, BIO 188, and 3 additional BIO courses) - Must complete BLE 220 with a “C” or better - The following courses may substitute for the PHY 101 requirement if all are completed: PHY 111, 112, 113, 114 - Complete EDT 180/321 - Minimum 2.50 ASU cumulative and critical content area course GPA required - Must complete at least 56 credits to progress into PTPP - MILESTONE: Attend PTPP Enrollment Workshop	
BLE 220: Foundations of SEI	3	☒		Grade of C		
BIO/LSC345: Organic Evolution	3	☒		Grade of C		
Social Behavioral (SB) Recommend EDP 311	3	☒				
PHY 101: Introduction to Physics	4	☐		Grade of C		
TERM FIVE: 61-75 CREDIT HOURS						
TEL 311: Instruction and Management in the Inclusive Classroom	3	☒		Grade of C	- Must possess DPS fingerprint clearance card to participate in field experience - Minimum 2.50 ASU cumulative GPA .	
TEL 313: Educational Technology in the K-12 Curriculum	3	☒		Grade of C		
TEL 314 Classroom Assessment	3	☒		Grade of C		
TEL 315: Child and Adolescent Development	3	☒		Grade of C		
TEL 396: Field Experience	1	☒		Grade of Y		
TERM SIX: 76-90 CREDIT HOURS						
BIO 340: General Genetics OR LSC 347/348: Fundamentals of Genetics and Lab	3	☐		Grade of C	Minimum 2.50 ASU cumulative GPA	
BLE 407: SEI for Secondary	3	☐		Grade of C		
SPE 417: Inclusion Practices at the Secondary Level	3	☒		Grade of C		
RDG 323: Literacy Processes in Content Areas	3	☒		Grade of C		
BIO 480: Methods of Teaching Biology OR SED 482: Methods of Teaching Science	3	☒		Grade of C		
SED 397: Field Experience	1	☒		Grade of Y		

Course Subject and Title (courses in bold/shading are critical)	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Tracking Notes
TERM SEVEN: 91-105 CREDIT HOURS					
BIO /LSC370: Vertebrate Zoology OR BIO/LSC 385: Comparative Invertebrate Zoology OR LSC 307: Comparative Plant Study OR LSC: 309: The Flora of Arizona OR LSC 444/445: Microbiology & Lab (see note) OR PLB 300: Comparative Plant Diversity OR PLB 310: The Flora of Arizona	4	☒		Grade of C	- Minimum 2.50 ASU cumulative GPA - Do not take LSC 444/445 if MIC 204/206 taken in previous term - BIO Elective can be any BIO 100-400 course except: BIO 100; BIO 120; BIO 201; BIO 202; BIO 241; BIO 300; BIO 319; PLB 108; PLB 320
BIO Elective (see note)	3	☒		Grade of C	
SED 321: Critical Issues in SED (L)	3	☒		Grade of C	
SED 322: Classroom Leadership in Secondary Schools	3	☒		Grade of C	
BIO 482: Advanced Methods for Teaching Biology OR SCN 494: Biology for Teachers	3	☒		Grade of C	
SED 496: Field Experience	1	☒		Grade of Y	
TERM EIGHT: 106-120 CREDIT HOURS					
SED 478: Student Teaching	8-12	☒		Grade of Y	Minimum 2.50 ASU cumulative GPA

Graduation Requirements Summary:

Total Hours (120 minimum)	Total UD Hours (minimum 45)	Cumulative GPA (2.50 minimum required by major)	Total Hrs at ASU (minimum 30)	Resident Credit for Academic Recognition (minimum 56)	Total Comm. College Hrs. (maximum 64)

General University Requirements: Legend

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) (6 credit hours)
 - Mathematical Studies (MA) (3 credit hours)
 - Computer/Statistics/Quantitative applications (CS) (3 credit hours)
 - Humanities, Fine Arts, and Design (HU) (6-9 credit hours)
 - Social and Behavioral Sciences (SB) (6-9 credit hours)
 - Natural Science-Quantitative (SQ) (4 – 8 credit hours) (cumulative SQ/SG credit must equal 8 credit hours)
 - Natural Science-General (SG) (0-4 credit hours) (cumulative SQ/SG credit must equal 8 credit hours)
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) (3 credit hours) (may be combined with other general studies requirements.)
 - Global Awareness (G) (3 credit hours) (may be combined with other general studies requirements.)
 - Historical Awareness (H) (3 credit hours) (may be combined with other general studies requirements.)
- First-Year Composition (ENG 101 & 102 OR ENG 107 & 108 or ENG 105)

Additional Notes:

Please check course availability in your specialization area as some courses are not offered every semester.

The requirements outlined on this major map meet ASU's graduation requirements for this catalog year and major; however, certification requirements are determined by the Arizona Department of Education (ADE) and are subject to change. Occasionally, additional courses, which are not outlined on this major map, may be required to obtain certification and/or an Institutional Recommendation. It is highly recommended that you speak with your advisor regarding any certification updates or changes.