

BIOLOGY WITH TEACHER CERTIFICATION, BACHELOR OF SCIENCE

Requirements

General Requirements

Code	Title	Credits
Core Curriculum		42
Required Support Courses		21
Major (Required) Courses		32-35
Teacher Certification Required Courses		25
Electives (As needed to complete 120 credit hours required)		
Total Credits		120

- 36 upper-division credit hours required for degree
- 25% of courses must be taken at A&M-SA for degree
- CIP Code: 26.0101
- Completion of this Degree Requires Admission to the Educator Preparation Program (EPP)

Code	Title	Credits
Core Curriculum		
ENGL 1301	Composition I	3
ENGL 1302	Composition II ¹	3
	or ENGL 2311 Technical Writing	
MATH 2312	Pre-Calculus	3
BIOL 1306	Gen Biology I-Attr Living Sys ¹	3
BIOL 1307	Gen Biology II-Biol Organisms ¹	3
	Lang/Phil/Culture	3
	Creative Arts	3
	American History	3
	American History	3
	Government/Political Science	3
	Government/Political Science	3
	Social & Behavioral Sciences	3
CHEM 1311	General Chemistry I	3
CHEM 1312	General Chemistry II	3
Subtotal:		42
Required Support Courses		
UNIV 1301	First Year Seminar	3
CHEM 1111	General Chemistry Lab I	1
CHEM 1112	General Chemistry Lab II	1
CHEM 2323	Organic Chemistry I	4
& CHEM 2123	and Organic Chemistry I Lab	
CHEM 2325	Organic Chemistry II	4
& CHEM 2125	and Organic Chemistry II Lab	
PHYS 1301	General Physics I	4
& PHYS 1101	and General Physics Lab I	
PHYS 1302	General Physics II	4
& PHYS 1102	and General Physics Lab II	
Subtotal:		21

Major (Required) Courses ^{2,3}		
BIOL 1106	General Biology I Lab ¹	1
BIOL 1107	General Biology II - Lab ¹	1
BIOL 2415	Statistics in Biology & Medicin	4
BIOL 2411	Genetics ¹	4
BIOL 3402	Evolution	4
BIOL 3407	Ecology	4
BIOL 3408	Animal Physiology	4
	or BIOL 3409 Cellular Physiology	
Select one of the following:		1
BIOL 4101	Seminar-Integrative Biology	
BIOL 4102	Seminar-Cell/Molecular Biology	
BIOL 4103	Seminar-Zoology	
BIOL 4104	Seminar-Ecology	
BIOL advanced electives		9-12
Subtotal:		32-35

Teacher Certification Required Courses ^{2,4}		
EDCI 3303	Knowledge of Pedagogy & Assess	3
EDSE 3345	Survey of Exceptional Individuals	3
EDCI 4311	Teaching and Pedagogy for Middle School and Secondary Teachers	3
EDCI 3358	Classroom Management: Middle and Secondary Level Teachers	3
EDCI 3309	Legal and Ethical Issues in Ed	3
EDRG 4325	Disciplinary & Contnt Area Lit	3
EDFR 3110	Field Lab Residency I	1
EDFR 4623	Scndry Clinic Tch:Fld Res III	6
Subtotal:		25
Electives		
As needed to complete 120 credit hours		
Total Credits		120

¹ An earned letter grade of C is required for this degree

² 2.75 overall GPA

³ 'C' or higher required in BIOL courses

⁴ 'C' or higher required in EDXX courses

Completion of 45 hours; all with a 'C' or better; Cumulative GPA of 2.75; Qualifying scores in Reading, Writing and Mathematics.

Code	Title	Credits
ENGL 1301	Composition I	3
ENGL 1302	Composition II	3
MATH 1314	College Algebra	3
HIST 1301	US History to 1865	3
HIST 1302	US History from 1865	3
2 Life & Physical Sciences		

ESL Endorsement Option

Requires students to complete an additional 9 hours by taking EDBL 3315 Second Language Acquisition and Literacy for English Language Learners, EDBL 3340 Applied Linguistics, and EDBL 3321 Mthd Teach Eng to Non-Eng Chld.

¹ A&M-SA students are required to take ENGL 1302 Composition II. Credit for ENGL 2311 Technical Writing will be accepted for transfer students.

Plan of Study

This suggested order of courses is for the Arts & Science component of this degree only. Courses associated with Education are not included and we encourage students to reach out to their advisors to incorporate these courses. In addition, this schedule assumes the following: 1) students come in TSI compliant for all categories 2) students come in as a freshmen with no previous credits earned 3) students pass all courses the first time. 4) all courses are offered during the semester suggested NOTE: If any of the above assumptions are not met, we encourage students to meet with their advisors. The most important component of this suggested schedule of courses is the order of the BIOL, CHEM, and MATH courses.

First Year

First Semester		Credits
BIOL 1306	Gen Biology I-Attr Living Sys	3
BIOL 1106	General Biology I Lab	1
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry Lab I	1
ENGL 1301	Composition I	3
HIST 1301	US History to 1865	3
UNIV 1301	First Year Seminar	3
Credits		17

Second Semester

BIOL 1307	Gen Biology II-Biol Organisms	3
BIOL 1107	General Biology II - Lab	1
CHEM 1312	General Chemistry II	3
CHEM 1112	General Chemistry Lab II	1
ENGL 2311	Technical Writing	3
HIST 1302	US History from 1865	3
Credits		14

Second Year

First Semester

BIOL 2411	Genetics	4
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Lab	1
MATH 2312	Pre-Calculus	3
GOVT 2305	Federal Government	3
Credits		14

Second Semester

BIOL 2415	Statistics in Biology & Medicin	4
CHEM 2323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Lab	1
GOVT 2306	Texas Government	3
Credits		11

Third Year

First Semester

BIOL 3402	Evolution	4
BIOL 3408	Animal Physiology	4
or BIOL 3409	or Cellular Physiology	
PHYS 1301	General Physics I	3

PHYS 1101	General Physics Lab I	1
Language/Philosophy/Cultural Studies		3
Credits		15

Second Semester

BIOL 3407	Ecology	4
BIOL Advanced Elective		3-4
PHYS 1302	General Physics II	3
PHYS 1101	General Physics Lab I	1
Creative Arts		3
Credits		14-15

Fourth Year

First Semester

BIOL Advanced Elective		3-4
BIOL 4101	Seminar-Integrative Biology	1
or BIOL 4102	or Seminar-Cell/Molecular Biology	
or BIOL 4103	or Seminar-Zoology	
or BIOL 4104	or Seminar-Ecology	
BIOL Advanced Elective		3-4
BIOL Advanced Elective		3-4
Social/Behavioral Science		3
Credits		13-16

Second Semester

Open semester can be inserted anywhere for teaching.		22
Credits		22
Total Credits		120-124