

BIOLOGY - BS

Program Requirements

First Year

Fall		Semester Credit Hours
BIOL 111	Introductory Biology I ^{1,2}	4
CHEM 119	Fundamentals of Chemistry I ²	4
Select one of the following: ^{2,3}		4
MATH 147	Calculus I for Biological Sciences	
MATH 151	Engineering Mathematics I	
MATH 171	Calculus I	
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3

Semester Credit Hours 15

Spring

BIOL 112	Introductory Biology II ^{1,2}	4
CHEM 120	Fundamentals of Chemistry II ²	4
Select one of the following: ²		3-4
MATH 148	Calculus II for Biological Sciences	
MATH 152	Engineering Mathematics II	
MATH 172	Calculus II	
STAT 201	Elementary Statistical Inference	
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3

Semester Credit Hours 14

Second Year

Fall		
BIOL 213	Molecular Cell Biology ²	3
CHEM 227 & CHEM 237	Organic Chemistry I and Organic Chemistry Laboratory ²	4
PHYS 201	College Physics	4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ^{4,5}		3

Semester Credit Hours 14

Spring

BIOL 214	Genes, Ecology and Evolution ²	3
CHEM 228 & CHEM 238	Organic Chemistry II and Organic Chemistry Laboratory ²	4
PHYS 202	College Physics	4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ^{4,5}		3

Semester Credit Hours 14

Total Semester Credit Hours 57

¹ Grade of C or better required.

² Must be completed by start of 5th full semester.

³ Students may not use MATH 142 to satisfy this requirement.

⁴ Students seeking teacher certification must take HIST 105 and HIST 106. Other students may choose HIST 105 and HIST 106 or any 6 hours of American history courses (3 hours may be in Texas history).

⁵ Students successfully completing the required four semesters of upper-level ROTC courses may substitute these courses for 3 hours of American history and 3 hours of government/political science.

The following are CBK courses and must be completed prior to the start of 5th full semester: BIOL 111, BIOL 112, BIOL 213, BIOL 214, CHEM 119, CHEM 120, CHEM 227 & CHEM 237, CHEM 228 & CHEM 238, MATH 147, MATH 148 or STAT 201.

Third Year

Fall		Semester Credit Hours
BIOL 410 or BICH 440	Comprehensive Biochemistry I or Biochemistry I	3
GENE 302 & GENE 314	Principles of Genetics and Principles of Genetics Laboratory	4
STAT 312	Statistics for Biology	3
Select one of the following:		1
BICH 412	Biochemistry Laboratory I	
BICH 414	Biochemical Techniques I	
BICH 432/ GENE 432	Laboratory in Molecular Genetics	
General elective ⁶		4

Semester Credit Hours 15

Spring

BIOL 411 or BICH 441	Comprehensive Biochemistry II or Biochemistry II	3
Select from the following: ⁷		4
BICH 464/ GENE 464	Bacteriophage Genomics	
BIOL 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)		
GENE 400-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)		
OCNG 320	Biological Oceanography	
VIBS 343 or VIBS 443	Histology or Biology of Mammalian Cells and Tissues	
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences)		3
General electives ⁶		6

Semester Credit Hours 16

Fourth Year

Fall		
POLS 206	American National Government ⁵	3
Select from the following: ⁷		7
BICH 464/ GENE 464	Bacteriophage Genomics	
BIOL 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)		

GENE 400-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)		
OCNG 320	Biological Oceanography	
VIBS 343 or VIBS 443	Histology or Biology of Mammalian Cells and Tissues	
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture)		3
General elective ⁶		3
Semester Credit Hours		16
Spring		
POLS 207	State and Local Government ⁵	3
Select from the following: ⁷		7
BICH 464/ GENE 464	Bacteriophage Genomics	
BIOL 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)		
GENE 400-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)		
OCNG 320	Biological Oceanography	
VIBS 343 or VIBS 443	Histology or Biology of Mammalian Cells and Tissues	
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)		3
General elective ⁶		3
Semester Credit Hours		16
Total Semester Credit Hours		63

⁶ Select from any 100-499 course not used elsewhere. (Except AGLS 101; ASCC 101, ASCC 102, ASCC 289; BIMS 101; BIOL 101, BIOL 107 BIOL 113, BIOL 206; CHEM 106, CHEM 116; MATH 102, MATH 142.) Only one KINE 199 may be used as a general elective.

⁷ Two courses in the major must be designated as writing intensive.

Total Program Hours 120