BIOLOGY - BS

Program Requirements

First Year
Fall
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)

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)

Semester Credit Hours 14

Second Year
Fall
BIOL 213 Molecular Cell Biology 2 3
CHEM 227 Organic Chemistry I 4
& CHEM 237 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) 3

Semester Credit Hours 14

Spring
BIOL 214 Genes, Ecology and Evolution 2 3
CHEM 228 Organic Chemistry II 4
& CHEM 238 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) 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.

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

Semester Credit Hours 16

3 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).
4 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.
5 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).
6 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>GENE 400-499</td>
<td>Biology - BS</td>
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<tr>
<td>OCNG 320</td>
<td>Biological Oceanography</td>
<td></td>
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<tr>
<td>VIBS 343 or VIBS 443</td>
<td>Histology or Biology of Mammalian Cells and Tissues</td>
<td></td>
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<tr>
<td>Language, philosophy and culture</td>
<td>(<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a>)</td>
<td>3</td>
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<tr>
<td>General elective 6</td>
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<td>3</td>
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<td>16</td>
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**Spring**

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<td>State and Local Government 5</td>
<td>3</td>
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<td>Select from the following: 7</td>
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<td>Creative arts</td>
<td>(<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a>)</td>
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**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**