# Program Requirements

## First Year

### Fall
- **BIOL 111** Introductory Biology I \(^1,2\)  
  - Credit Hours: 4
- **CHEM 119** Fundamentals of Chemistry I \(^2\)  
  - Credit Hours: 4
- Select one of the following: \(^3\)
  - **MATH 147** Calculus I for Biological Sciences  
    - Credit Hours: 4
  - **MATH 151** Engineering Mathematics I
  - **MATH 171** Calculus I
- Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)  
  - Credit Hours: 3
- **Semester Credit Hours**: 15

### Spring
- **BIOL 112** Introductory Biology II \(^1,2\)  
  - Credit Hours: 4
- **CHEM 120** Fundamentals of Chemistry II \(^2\)  
  - Credit Hours: 4
- Select one of the following: \(^2\)
  - **MATH 148** Calculus II for Biological Sciences  
    - Credit Hours: 3-4
  - **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)  
  - Credit Hours: 3
- **Semester Credit Hours**: 14

## Second Year

### Fall
- **BIOL 213** Molecular Cell Biology \(^2\)  
  - Credit Hours: 3
- **CHEM 227** Organic Chemistry I and Organic Chemistry Laboratory \(^2\)  
  - Credit Hours: 4
- **PHYS 201** College Physics  
  - Credit Hours: 4
- American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) \(^4,5\)  
  - Credit Hours: 3
- **Semester Credit Hours**: 14

### Spring
- **BIOL 214** Genes, Ecology and Evolution \(^2\)  
  - Credit Hours: 3
- **CHEM 228** Organic Chemistry II and Organic Chemistry Laboratory \(^2\)  
  - Credit Hours: 4
- **PHYS 202** College Physics  
  - Credit Hours: 4
- American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) \(^4,5\)  
  - Credit Hours: 3
- **Semester Credit Hours**: 14

## Total Semester Credit Hours
- **57**

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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.

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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
- **BICH 410** or **BICH 440** Comprehensive Biochemistry I or Biochemistry I  
  - Credit Hours: 3
- **POLS 206** American National Government \(^5\)  
  - Credit Hours: 3
- **STAT 312** Statistics for Biology  
  - Credit Hours: 3
- Select one of the following:
  - **BICH 412** Biochemistry Laboratory I
  - **BICH 414** Biochemical Techniques I
  - **BICH 432** or **GENE 432** Laboratory in Molecular Genetics
- **General elective** \(^6\)  
  - Credit Hours: 4
- **Semester Credit Hours**: 15

### Spring
- **BICH 411** or **BICH 441** Comprehensive Biochemistry II or Biochemistry II  
  - Credit Hours: 3
- **POLS 207** State and Local Government \(^5\)  
  - Credit Hours: 3
- Select one of the following: \(^7\)
  - **BICH 464** or **GENE 464** Bacteriophage Genomics
  - **BIOL 300-499** (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)
  - **GENE 302** or **GENE 314** Principles of Genetics & Principles of Genetics Laboratory
  - **GENE 400-499** (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)
  - **OCNG 320** Biological Oceanography
  - **VIBS 343** Histology
  - **VIBS 443** Biology of Mammalian Cells and Tissues
- **General elective** \(^6\)  
  - Credit Hours: 6
- **Semester Credit Hours**: 15

## Fourth Year

### Fall
- Select from the following: \(^7\)
  - **BICH 464** or **GENE 464** Bacteriophage Genomics
  - **BIOL 300-499** (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)
  - **GENE 302** or **GENE 314** Principles of Genetics & Principles of Genetics Laboratory
  - **GENE 400-499** (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)
- **Semester Credit Hours**: 15
OCNG 320 Biological Oceanography
VIBS 343 Histology
VIBS 443 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 elective 6 7

| Semester Credit Hours | 17 |

Spring
Select from the following: 7

BICH 464/GENE 464 Bacteriophage Genomics
BIOL 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/biol/)
GENE 302 Principles of Genetics
& GENE 314 Principles of Genetics Laboratory
GENE 400-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/gene/)
OCNG 320 Biological Oceanography
VIBS 343 Histology
VIBS 443 Biology of Mammalian Cells and Tissues

Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
General elective 6 7

| Semester Credit Hours | 17 |

| 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