**BACHELOR OF SCIENCE (BS) BIOLOGY**

This program prepares you to pursue a graduate degree in biology or to go on to professional schools in the health sciences. Training in biology also prepares you for a wide variety of career choices, including careers in research in academic, government, and private research laboratories, science teaching, positions in the biomedical, biotechnology, and pharmaceutical industries, and other related fields. While many positions are open to those holding a BS degree, some may only be open to those holding advanced graduate degrees.

<table>
<thead>
<tr>
<th>GENERAL EDUCATION REQUIREMENTS (38 Credits)</th>
<th>SEMESTER</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AREA I: COMMUNICATIONS (9 Credits)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111 Composition I (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPCH 130 Public Speaking (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **AREA II: MATHEMATICS (3 Credits)**        |          |       |
| MATH 150 College Algebra (3)                |          |       |
| Pre-requisite: Math 130 or adequate score on the Course Placement Evaluation |

| **AREA III: LABORATORY SCIENCES (8 Credits)** |          |       |
| BIOL 110/L Current Topics in Biology with Lab (4) |          |       |
| Pre-requisite: ENG 109 or adequate score on Course Placement Evaluation |
| CHEM 110/L Introduction to Chemistry with Lab (4) |          |       |
| Pre-requisites: MATH 102 and ENG 109 |

| **AREA IV: SOCIAL/BEHAVIORAL SCIENCES (6 - 9 Credits)** |          |       |
| Students must complete a minimum of 15 credit hours spread between areas IV and V. |          |       |
### AREA V: HUMANITIES AND FINE ARTS (6 - 9 Credits)

*Students must complete a minimum of 15 credit hours spread between areas IV and V.*

- **PHIL 220** Ethics (3)
  - Pre-requisite: None

### AREA VI: FIRST YEAR EXPERIENCE (3 Credits)

- **FYE 101** First Year Experience (3)
  - Pre-requisite: Freshman Standing Only

### PROGRAM REQUIREMENTS (86 Credits)

#### BIOLOGY CORE CURRICULUM (20 CREDITS)

- **BIOL 201/L** Introduction to Molecular and Cell Biology with Lab (4)
  - Pre-requisites: ENG 111 and CHEM 121/L
- **BIOL 202/L** Principles of Genetics with Lab (4)
  - Pre-requisite: BIOL 201/L
- **BIOL 203/L** Ecology and Evolution with Lab (4)
  - Pre-requisites: ENG 111, MATH 150, and CHEM 121/L
- **BIOL 204/L** Plant and Animal Form and Function with Lab (4)
  - Pre-requisites: MATH 150, BIOL 201/L, and CHEM 121/L
- **BIOL 329/L** Cellular and Molecular Biology with Lab (4)
  - Pre-requisite: BIOL 204/L

#### SEMINAR AND RESEARCH EXPERIENCE (7 CREDITS)

- **BIOL 392** Undergraduate Research Experience (3)
  - Pre-requisite: Permission of Instructor
- **BIOL 472** Undergraduate Seminar in Biology (1)
  - Pre-requisite: Permission of Instructor
- **BIOL 492** Biology Capstone Project (3)
  - Pre-requisite: Permission of Instructor

#### SUPPORTIVE COURSES IN MATH, CHEMISTRY, AND PHYSICS (35 CREDITS)

- **MATH 145** Introduction to Probability and Statistics (3)
  - Pre-requisite: MATH 130
- **MATH 155** Trigonometry and Pre-Calculus (4)
  - Pre-requisite: MATH 150
- **MATH 162** Calculus (4)
  - Pre-requisite: MATH 155
- **CHEM 121/L** General Chemistry I with Lab (4)
  - Pre-requisite: MATH 130, high school chemistry, or ACT score of 19 or higher in natural science and ENG 111
- **CHEM 122/L** General Chemistry II with Lab (4)
  - Pre-requisite: CHEM 121/L
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 301/L</td>
<td>Organic Chemistry I with Lab (4)</td>
<td></td>
<td>CHEM 122/L</td>
</tr>
<tr>
<td>CHEM 421/L</td>
<td>Biochemistry with Lab (4)</td>
<td></td>
<td>CHEM 301/L, 302/L, and 311/L</td>
</tr>
<tr>
<td>PHYS 121/L</td>
<td>Applied Physics I with Lab (4)</td>
<td></td>
<td>Math 130</td>
</tr>
<tr>
<td>PHYS 122/L</td>
<td>Applied Physics II with Lab (4)</td>
<td></td>
<td>PHYS 121/L</td>
</tr>
</tbody>
</table>

**ADDITIONAL PROGRAM REQUIREMENTS (24 Credits)**

The remaining 24 credit hours MUST be upper division (300-499). Please seek departmental advisement to tailor your course selection to your individual career objectives. Note: Course selection must be approved by BIOL program advisor and Chair of the department.

<table>
<thead>
<tr>
<th>TOTAL CREDITS</th>
<th>124</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVISOR APPROVAL</td>
<td></td>
</tr>
<tr>
<td>DATE</td>
<td></td>
</tr>
</tbody>
</table>
# SUGGESTED SEQUENCE OF COURSES

## FIRST SEMESTER (17 Credits)
- ENG 111 English Composition I (3)
- BIOL 110/L Current Topics in Biology with Lab (4)
- CHEM 110/L Introduction to Chemistry with Lab (4)
- MATH 150 College Algebra (3)
- FYE 101 First Year Experience (3)

## SECOND SEMESTER (15 Credits)
- CHEM 121/L General Chemistry I with Lab (4)
- MATH 155 Trigonometry and Pre-Calculus (4)
- PHYS 121/L Applied Physics with Lab (4)
- SPCH 130 Public Speaking (3)

## THIRD SEMESTER (16 Credits)
- BIOL 201/L Introduction to Molecular and Cell Biology with Lab (4)
- BIOL 203/L Ecology and Evolution with Lab (4)
- CHEM 122/L General Chemistry II with Lab (4)
- MATH 162 Calculus (4)

## FOURTH SEMESTER (15 Credits)
- BIOL 202/L Principles of Genetics with Lab (4)
- BIOL 204/L Plant and Animal Form and Function with Lab (4)
- CHEM 301/L Organic Chemistry I with Lab (4)
- MATH 145 Introduction to Probability and Statistics (3)

## FIFTH SEMESTER (15 Credits)
- BIOL 329 Cellular and Molecular Biology (4)
- PHYS 122/L Applied Physics II with Lab (4)
- Upper Division Elective (4)
- Area VI Social and Behavioral Science (3)

## SIXTH SEMESTER (15 Credits)
- PHIL 220 Ethics (3)
- Upper Division Elective (4)
- Upper Division Elective (4)
- CHEM 421/L Biochemistry with Lab (4)

## SEVENTH SEMESTER (17 Credits)
- BIOL 392 Undergraduate Research Experience (3)
- Upper Division Elective (4)
- Upper Division Elective (4)
- Area I Communication (3)
- Area IV Social and Behavioral Science (3)

## EIGHTH SEMESTER (14 Credits)
- BIOL 472 Undergraduate Seminar in Biology (1)
- BIOL 492 Biology Capstone Project (3)
- Upper Division Elective (4)
Area V  Humanities and Fine Arts (3)
Area IV or V  Social and Behavioral Science or Humanities and Fine Arts (3)
# Educational Planning Form (Semester)

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
<th>SUMMER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>Total Units</td>
<td>Total Units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FALL SEMESTER</td>
<td>SPRING SEMESTER</td>
<td>SUMMER</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>Total Units</td>
<td>Total Units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FALL SEMESTER</td>
<td>SPRING SEMESTER</td>
<td>SUMMER</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Units</td>
<td>Total Units</td>
<td>Total Units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>