## B.A. IN BIOLOGY

## Overview

The B.A. degree is recommended for students involved in interdisciplinary programs and for entrance to those professional schools and specific biological careers not requiring a B.S. degree with a major in Biology.

## Curriculum Requirements

| Code | Title | Credit Hours |
| :---: | :---: | :---: |
| Biology |  |  |
| BIL 150 | General Biology | 4 |
|  | General Biology Laboratory | 1 |
| or BIL 153 | Introductory Biology/Chemistry Laboratory I |  |
| BIL 160 | Evolution and Biodiversity | 4 |
|  | Evolution and Biodiversity Laboratory | 1 |
| or BIL 163 | Introductory Biology/Chemistry Laboratory II |  |
| BIL Electives |  | 24 |
| At least three BIL elective credits must be at the 400-level or higher |  |  |
| At least one elective course must be a CAPSTONE. Capstone courses can be located in Canelink Class Search under "Additional Search Criteria", subheading "Course Attributes". Seminars in Biology (BIL 374, BIL 375, and BIL 402) are capstones. |  |  |
| Up to eight credit hours for the major may be selected from courses with a biological topic and numbered 300 or higher in MBE, MES, or MSC. |  |  |
| Chemistry |  |  |
| Select one of the following options: |  | 8-15 |
| Option 1: |  |  |
| CHM 103 | Chemistry for the Health Sciences I |  |
| CHM 105 | Chemistry for the Health Sciences I (Laboratory) |  |
| CHM 104 | Chemistry for the Health Sciences II |  |
| CHM 106 | Chemistry for the Health Sciences II (Laboratory) |  |
| Option 2: Choose Chemistry for the BioSciences Three-semester Sequence. |  |  |
| CHM 121 <br> \& CHM 113 | Principles of Chemistry and Chemistry Laboratory I |  |
| CHM 221 <br> \& CHM 205 | Introduction to Structure and Dynamics and Chemical Dynamics Laboratory |  |
| $\begin{aligned} & \text { CHM } 222 \\ & \text { \& CHM } 206 \end{aligned}$ | Organic Reactions and Synthesis and Organic Reactions and Synthesis Laboratory |  |
| Minor |  | 15 |
| A minor in any department. |  |  |
| General Education Requirements |  |  |
| Written Communication Skills: |  |  |
| WRS 105 | First-Year Writing I | 3 |
| ENG 106 | Writing About Literature and Culture | 3 |
| or WRS 106 | First-Year Writing II |  |
| or WRS 107 | First-Year Writing II: STEM |  |
| Quantitative Skills: |  |  |
| MTH 113 | Finite Mathematics (These courses fulfill the quantitative skills proficiency requirement.) | 3 |
| or MTH 108 | Precalculus Mathematics II |  |
| Areas of Knowledge: |  |  |
| Arts and Humanities Cognate |  | 9 |
| People and Society Cognate |  | 9 |
| STEM Cognate (9 credits) (fulfilled through the major) |  |  |
| Additional Required Courses |  |  |


| Language Courses | $3-9$ |
| :--- | ---: | ---: |
| Electives | $33-20$ |
| Total Credit Hours | $\mathbf{1 2 0}$ |

## Suggested Plan of Study

| Year One |  |  |
| :---: | :---: | :---: |
| Fall |  | Credit Hours |
| BIL 150 | General Biology | 4 |
| BIL 151 or 153 | General Biology Laboratory or Introductory Biology/Chemistry Laboratory I | 1 |
| WRS 105 | First-Year Writing I | 3 |
| Elective (Usually MTH) |  | 3 |
| Language 101 |  | 3 |
|  | Credit Hours | 14 |
| Spring |  |  |
| BIL 160 | Evolution and Biodiversity | 4 |
| BIL 161 or 163 | Evolution and Biodiversity Laboratory or Introductory Biology/Chemistry Laboratory II | 1 |
| ENG 106, WRS 106, or WRS 107 | Writing About Literature and Culture or First-Year Writing II or First-Year Writing II: STEM | 3 |
| Choose one of the following: |  | 3 |
| MTH 108 | Precalculus Mathematics II |  |
| MTH 113 | Finite Mathematics |  |
| MTH 130 | Introductory Calculus |  |
| Language 102 |  | 3 |
|  | Credit Hours | 14 |
| Year Two |  |  |
| Fall |  |  |
| BIL Elective (BIL 250 or BIL 255 recommended) |  | 3 |
| CHM 103 | Chemistry for the Health Sciences I | 3 |
| CHM 105 or 113 | Chemistry for the Health Sciences I (Laboratory) or Chemistry Laboratory I | 1 |
| Language 2XX |  | 3 |
| Arts and Humanities Cognate Course |  | 3 |
| People and Society Cognate Course |  | 3 |
|  | Credit Hours | 16 |
| Spring |  |  |
| BIL Elective (BIL 330 or BIL 320 recommended) |  | 3 |
| Course in Minor |  | 3 |
| CHM 104 | Chemistry for the Health Sciences II | 3 |
| CHM 106 or 205 | Chemistry for the Health Sciences II (Laboratory) or Chemical Dynamics Laboratory | 1 |
| Arts and Humanities Cognate Course |  | 3 |
| People and Society Cognate Course |  | 3 |
|  | Credit Hours | 16 |
| Year Three |  |  |
| Fall |  |  |
| BIL Elective |  | 3 |
| Arts and Humanities Cognate Course (WRI) |  | 3 |
| General Elective (WRI) |  | 3 |
| Course in Minor |  | 3 |


| Elective |  | 3 |
| :---: | :---: | :---: |
|  | Credit Hours | 15 |
| Spring |  |  |
| BIL Elective |  | 3 |
| People and Society Cognate Course |  | 3 |
| General Elective (WRI) |  | 3 |
| Course in Minor |  | 3 |
| Elective |  | 3 |
|  | Credit Hours | 15 |
| Year Four |  |  |
| Fall |  |  |
| BIL Elective 400 level or higher |  | 3 |
| BIL Elective |  | 3 |
| Course in Minor (WRI) |  | 3 |
| General Elective |  | 3 |
| General Elective |  | 3 |
|  | Credit Hours | 15 |
| Spring |  |  |
| BIL Elective |  | 3 |
| BIL Elective |  | 3 |
| Course in Minor |  | 3 |
| Course in Minor or Elective |  | 3 |
| General Elective (WRI) |  | 3 |
|  | Credit Hours | 15 |
|  | Total Credit Hours | 120 |

## Student Learning Outcomes

- Students will, through a required core of courses including laboratories, demonstrate a broad knowledge base in Biology.
- Students will, through exposure to biological concepts, inquiry-based learning and biological research, develop the ability to think critically and to formulate and test hypotheses.
- Students will, through courses intensive in research presentations, develop presentation skills sufficient to communicate scientific information to professional and public audiences.
- Students will, through exposure to biological concepts, inquiry-based learning and biological research, develop the ability to think critically and understand proper application of the scientific method.

