## **Program Description**

The Biology AS degree is designed to prepare students for a rigorous four-year Biology program. This program focuses on the study of principles of biology, problem solving, critical thinking, laboratory skills, and technical communication. It is designed primarily for transfer to a Pennsylvania Transfer and Articulation Oversight Committee (TAOC) four-year institution.

## **Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Demonstrate an understanding of fundamental biology concepts and principles.
- Apply problem solving, critical thinking and analysis skills to biology problems.
- Work effectively with units and significant digits.
- Carry out biology experiments as well as accurately record and analyze results of such experiments in writing.

| Sugg.<br>Term | Seq# | Course ID | Course Title                       | Cr. | Prereq/Coreq(Co)  | Options Available                              |
|---------------|------|-----------|------------------------------------|-----|---|--|
| 1st<br>Fall   | 1    | PDV 171   | Career Pathway Exploration         | 3   |   |  |
|               | 2    | ENG 161   | College Writing                    | 3   | ENG 085 or Placement  |  |
|               | 3    | MTH 167   | College Trigonometry               | 3-4 | MTH 157 or Placement  | MTH 170  |
|               | 4    | BIO 155   | General Biology I                  | 4   |   |  |
|               | 5    | CHM 151   | General Chemistry I Lab            | 1   | Co: CHM 150   |  |
|               | 6    | CHM 150   | General Chemistry I Lecture        | 3   | High school chemistry (C<br>or better) or CHM 107,<br>MTH 052 or placement                            |  |
| 1st<br>Spring | 7    | MTH 172   | Analytical Geometry and Calculus I | 4   | "C" Grade or Better in<br>MTH 109, MTH 167 or<br>MTH 170 or Placement                                 |  |
|               | 8    | BIO 156   | General Biology II                 | 4   | BIO 155   |  |
|               | 9    | CHM 160   | General Chemistry II Lecture       | 3   | CHM 150/151   |  |
|               | 10   | CHM 161   | General Chemistry II Lab           | 1   | Co: CHM 160   |  |
|               | 11   | Elective  | Humanities Elective                | 3   |   | Page 28 Column II                              |
| 2nd<br>Fall   | 12   | CHM 260   | Organic Chemistry   Lecture        | 3   | CHM 160/161   |  |
|               | 13   | CHM 261   | Organic Chemistry I Lab            | 1   | Co: CHM 260   |  |
|               | 14   | Elective  | BIO Elective                       | 3-4 |   | BIO 120, BIO 145, BIO 255, BIO 265, BIO 285    |
|               | 15   | SPC 155   | Effective Speech                   | 3   |   |  |
|               | 16   | Elective  | Social Science Elective            | 3   |   | Page 28 Column III                             |
| 2nd<br>Spring | 17   | CHM 270   | Organic Chemistry II Lecture       | 3   | CHM 260/261   |  |
|               | 18   | CHM 271   | Organic Chemistry II Lab           | 1   | Co: CHM 270   |  |
|               | 19   | Elective  | BIO Elective                       | 3-4 |   | BIO 120, BIO 145, BIO<br>255, BIO 265, BIO 285 |
|               | 20   | STM 296   | STEM Seminar                       | 1   | 9 credits of Natural<br>Science and/or Math<br>with at least one of these<br>courses at the 200-level |  |
|               | 21   | Elective  | Humanities Elective                | 3   |   | Page 28 Column II                              |
|               | 22   | Elective  | Social Science Elective            | 3   |   | Page 28 Column III                             |

Minimum Program Credits

60-62

BIO