

BIOLOGY (AS.BIO)

ASSOCIATE OF SCIENCE

Program Outcomes: Upon successful completion of this program a student will be able to:

- apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
- describe the structure and function of biological molecules, cells and organelles, and tissues and organ systems of plants and animals.
- apply the principles of heredity at the molecular, cellular, and organismal levels.
- explain the mechanism and evidence of evolution through natural selection.
- apply taxonomic principles to the classification of organisms.
- describe the flow of energy within organisms and within ecosystems.

Required Major Courses (33 units)

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| <input type="checkbox"/> BIO-1 – Fundamental Biological Concepts | 5.0 |
| <input type="checkbox"/> BIO-2 – General Zoology | 5.0 |
| <input type="checkbox"/> BIO-3 – General Botany | 5.0 |
| <input type="checkbox"/> CHM-1A – General Chemistry | 5.0 |
| <input type="checkbox"/> CHM-1B – General Chemistry | 5.0 |
| <input type="checkbox"/> MAT-13 – Elementary Statistics | 4.0 |
| <input type="checkbox"/> MAT-25 – Pre-Calculus | 4.0 |

Major Electives (Select 1 series 8-12 units)

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|---|------|
| <input type="checkbox"/> PHY-2A/2B – College Physics | 8.0 |
| <input type="checkbox"/> PHY-4A/4B/4C – General Physics | 12.0 |

Recommended Major Electives (None Required)

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|--|-----|
| <input type="checkbox"/> CHM-12A – Organic Chemistry I | 5.0 |
| <input type="checkbox"/> CHM-12B – Organic Chemistry II | 5.0 |
| <input type="checkbox"/> MAT-3A – Analytic Geometry and Calculus I | 4.0 |
| <input type="checkbox"/> MAT-3B – Analytic Geometry and Calculus II | 4.0 |
| <input type="checkbox"/> MAT-3C – Analytic Geometry and Calculus III | 4.0 |

SUBTOTAL: 41-45 UNITS

General Education – Required Courses

Students must complete one of the following General Education Plans:

HCCD GE (see page 66) *MAT-13 and MAT-25*

- Natural Sciences Social & Behavioral Sciences Humanities
 Ethnic Groups in the US Language and Rationality

SUBTOTAL: 21 UNITS

Students can double-count required courses and courses for General Education

■ *Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.*

TOTAL: 62-66 UNITS