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)

- BIO-1 – Fundamental Biological Concepts 5.0
- BIO-2 – General Zoology 5.0
- BIO-3 – General Botany 5.0
- CHM-1A – General Chemistry 5.0
- CHM-1B – General Chemistry 5.0
- MAT-13 – Elementary Statistics 4.0
- MAT-25 – Pre-Calculus 4.0

Major Electives (Select 1 series 8-12 units)

- PHY-2A/2B – College Physics 8.0
- PHY-4A/4B/4C – General Physics 12.0

Recommended Major Electives (None Required)

- CHM-12A – Organic Chemistry I 5.0
- CHM-12B – Organic Chemistry II 5.0
- MAT-3A – Analytic Geometry and Calculus I 4.0
- MAT-3B – Analytic Geometry and Calculus II 4.0
- 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