

MARINE BIOLOGY ASSOCIATE IN SCIENCE



The Marine Biology degree is designed to provide a two-year transfer program leading to a B.S. degree in Marine Biology with emphasis on the diversity of organisms and the biological and physical processes that affect these organisms, their populations and their coastal and oceanic ecosystems. This major requires a strong foundation in natural sciences that is provided in this two-year transfer degree that can lead to UC or CSU Marine Biology programs.

Program Learning Outcomes

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

- Explain the basic structures and fundamental processes of life at the molecular, cellular, and organismal levels.
- Identify the evolutionary processes that lead to adaptation and biological diversity.
- Describe the relationship between life forms and their environment and ecosystems.
- Collect, organize, analyze, interpret and present quantitative and qualitative data and incorporate them into the broader context of biological knowledge.
- Effectively apply current technology and scientific methodologies for problem solving.
- Find, select and evaluate various types of scientific information including primary research articles, mass media sources and Internet information.
- Communicate effectively in written and oral formats.

Associate in Science Degree Requirements

| Code | Title | Units |
|--------------------------------------|--|-------|
| BIO-230 | Principles of Cellular, Molecular and Evolutionary Biology | 4 |
| BIO-240 | Principles of Ecology, Evolution and Organismal Biology | 5 |
| CHEM-141 | General Chemistry I | 5 |
| CHEM-142 | General Chemistry II | 5 |
| MATH-180 | Analytic Geometry and Calculus I | 5 |
| MATH-280 | Analytic Geometry and Calculus II | 4 |
| MATH-281 | Multivariable Calculus | 4 |
| Select one of the following options: | | 8-15 |
| Option 1: | | |
| PHYC-201 | Mechanics and Waves | |
| PHYC-202 | Electricity, Magnetism, and Heat | |
| PHYC-203 | Light, Optics, and Modern Physics | |
| Option 2: | | |
| PHYC-130 | Fundamentals of Physics | |

PHYC-131

Fundamentals of Physics

Total Units**40-47**

Plus General Education Requirements (<https://catalog.gcccd.edu/cuyamaca/degree-requirements-transfer-information/>)

Completion of IGETC-CSU for STEM allows for completion of 6 units of non-STEM GE work after transfer. One Area 3 course (Fine Arts and Humanities) and one Area 4 course (Social and Behavioral Sciences) may be deferred until after transfer.