

BIOLOGY - ASSOCIATE IN ARTS

The purpose of the associate degree in Biology is to provide a lower division science foundation for those interested in pursuing biology as a major field of study. This major prepares students to transfer to any California State University or University of California campus. Students considering careers in research, teaching, medical fields, biotechnology, or other related fields require a foundation in biological sciences. The Biology major is an ideal academic preparation for entry into these professions. Students must complete each major course and major elective course with a grade of 'C' or better to be awarded the degree.

Program Learning Outcomes

- Employ the scientific method to pose testable hypotheses and make predictions.
- Design and implement controlled experiments or observational studies to test predictions.
- Collect, quantify, summarize, interpret, and present biological data.
- Critically assess biological arguments.
- Use computers to access multimedia lessons and conduct Internet searches for information on biological phenomena.
- Write scientific papers and laboratory reports.
- Use scientific terms appropriately.
- Describe the importance of evolution as a guiding principle in biology.
- Explain and apply general biological principles to include biochemistry, cell and molecular biology, organismal biology, genetics, evolutionary biology, and ecology.
- Integrate the concepts and systems of homeostasis.
- Compare and contrast the cells, tissues, organs, and organ systems of plant and animal organisms.
- Apply general chemistry principles to biological processes and systems.

Major Requirements

Course	Title	Units
BIOL 004A	General Principles and Cell Biology	5
BIOL 004B	Organismal Biology and Biodiversity	5
CHEM 001A	General Chemistry	5
CHEM 001B	General Chemistry	5

Major Electives

Course	Title	Units
Select 8 units from the following:		8
BIOL 020	Human Biology	
BIOL 025	Forensic Biology	
BIOL 033		
BIOL 061	Human Heredity	
BIOL 062	Plants and Human Welfare	
BIOL 063	Ecology	
BIOL 064	Marine Biology	
BIOL 065	Wildlife Biology	
BIOL 071	Human Anatomy	
BIOL 072	Human Physiology	
BIOL 074	General Microbiology	

BIOL 080	Field Biology
ENVIR 010	Environmental Science

Recommended Chemistry/Math Preparation

Course	Title	Units
CHEM 012A	Organic Chemistry	5
CHEM 012B	Organic Chemistry	5
MATH 063	Elementary Statistics	3
MATH 071	Calculus I With Analytic Geometry	5
MATH 072	Calculus II With Analytic Geometry	5

Total Requirements

Course	Title	Units
Major Requirements		20
Major Electives		8
General Education Requirements ¹		33
Physical Activity		1
Total Units		62

¹ 6 units of G.E. (Area B) can be met in Physical and Biological Science from required major/elective courses