

BIOLOGICAL SCIENCES ASSOCIATE IN SCIENCE



The Biological Sciences Department offers a solid academic foundation for further study in life sciences. The primary emphasis of the biological sciences major program is to prepare students for successful transfer to baccalaureate (four-year) institutions. This course package for majors is modeled on the transfer requirements of San Diego State University and will satisfy requirements of most other California State University and University of California campuses. Students should check the catalog of the transfer school being considered for its specific requirements.

Career Opportunities

<https://www.grossmont.edu/student-support/career-center/resources.php>

Aquatic Biologist¹
 Biologist¹
 Biotechnology Lab Technician¹
 Cytotechnologist
 Ecologist¹
 Environmental Engineer¹
 Forensic Pathologist¹
 Geneticist¹
 Hydrologist¹
 Laboratory Assistant
 Microbiologist¹
 Nuclear Medical Technician²
 Physical Therapist¹
 Sanitarian¹

¹ Bachelor's Degree or higher required.

² Bachelor Degree normally recommended.

The Program-level Student Learning Outcomes (PSLOs) below are outcomes that students will achieve after completing specific degree / certificate requirements in this program. Students will:

1. Explain how differences are the result of changes in characteristics due to natural selection and other forces of evolution.
2. Compare and contrast the ways that different kinds of cells, organisms or the community take in, use, and transfer energy to meet their metabolic needs (Homeostasis).
3. Describe how genetic information is stored, expressed, and transferred to offspring.
4. Explain how a specific structure has a specific function based on its characteristics.
5. Explain causes of climate change (natural and anthropogenic influences), consequences of climate change and strategies for addressing the human influence.
6. Demonstrate comfort and competence in interpreting and working with numerical data to weigh evidence, draw conclusions, and solve problems in biological applications.

Associate Degree Major Requirements

Note: All courses must be completed with a letter grade of "C" or higher or "Pass."

Code	Title	Units
BIO-215	Statistics for Life Sciences	3
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
Select one of the following:		5
CHEM-231	Organic Chemistry I	
or		
CHEM-241 & CHEM-241L	Organic Chemistry I Lecture and Organic Chemistry I Laboratory	
MATH-180	Analytic Geometry and Calculus I	5
PHYC-130	Fundamentals of Physics	4
PHYC-131	Fundamentals of Physics	4
Total Units		40

Plus General Education (<https://catalog.gcccd.edu/grossmont/admission-information/general-education-transfer/>) and Elective Requirements