

# BIOLOGICAL SCIENCE

## A.S. Degree

Biotechnology *Certificate of Proficiency*

Contact:  
(408) 848-4701  
las@gavilan.edu



## Biological Science

### A.S. Degree

#### MAJOR REQUIREMENTS:

CHEM 1A/B	General Chemistry	5-5 units
BIO 1	General Biology	.4 units
BIO 4	General Zoology	.4 units
BIO 5	General Botany	.4 units
PHYS 2A/B	General Physics	4-4 units
Total Units for Major:		30 UNITS

Plus completion of general education requirements . . . . . units vary  
Total Units Required for A.S.: . . . . . minimum of 60 UNITS

#### Recommended Electives:

MATH 1A/B, ECOL 1, BIO 8, 9, 15 (only if taken before BIO 7 and BIO 9)

Students completing the courses will have satisfied requirements for physical and biological sciences. See the Gavilan general education requirements on page 47.

Recommended preparation for the major requirements listed.

1. One year of high school chemistry or CHEM 30A (Elementary Chemistry) or BIO 1, CHEM 30A or BIO 10 or equivalent.
2. At a minimum be eligible to enter ENGL 250 and ENGL 260.
3. Two years of high school math or MATH 233.

## Biotechnology

### Certificate of Proficiency

BIOT 103	Biotechnology Lab Skills and Instrumentation	.4 units
BIOT 104	Seminar in Biotechnology	.1 unit
BIO 10	Principles of Biology	.4 units
CHEM 30A	Elementary Chemistry	.4 units
CHEM 30B	Elementary Organic and Biochemistry	.4 units
Total Units for Certificate of Proficiency:		17 UNITS

**Program Learning Outcomes:** After completing the Biological Science major a student will be able to:

- ▶ discuss the scientific method and utilize the scientific method in further understanding of their bodies and the world at large.
- ▶ develop basic laboratory skills, which they will be able utilize in further investigations.
- ▶ identify structures of selected organisms and relate structure to biological function.

Students transferring to a four year institution will be prepared for additional study in the following areas: Biology, botany, ecology, entomology, forestry, genetics, marine biology, microbiology, medical technology, molecular biology, nursing, physical therapy, pre-dental, pre-medicine, pre-veterinarian, zoology.

Careers for those with a biotechnology certificate:

- Animal care technician
- Assay analyst
- Laboratory assistant or technician
- Manufacturing technician
- QA/QC technician

In addition to the biotechnology industry, jobs for technicians can be found in environmental testing labs, forensic labs, hospitals, plant pathology labs, research labs and wineries.