

CERTIFICATE IN BIOTECHNOLOGY

The Certificate in Biotechnology program is designed to allow students who are pursuing an undergraduate major in biology or biochemistry to learn the theoretical basis, principles, and current applications of biotechnology. An integral part of the program is a supervised internship to be served in a Bay Area biotechnology company laboratory. Laboratory-oriented students will find an expanding demand for their skills upon completion of the program both in the Bay Area and nationwide.

Students must earn a grade of C or better in all prerequisite courses, and be prepared to provide copies of transcripts demonstrating completion of prerequisites.

Biotechnology, Certificate – 34–39 Units

Prerequisites (20 Units)

Code	Title	Units
BIOL 355	Genetics	3
BIOL 401	General Microbiology	3
BIOL 402GW	General Microbiology Laboratory - GVAR	3
BIOL 442	Microbial Physiology	3
BIOL 443	Microbial Physiology Laboratory	2
CHEM 340	Biochemistry I	3
CHEM 341	Biochemistry II	3

Required Courses (6 Units)

At least one course must be selected, on advisement, from each of the following areas:

Code	Title	Units
BIOL 694	Cooperative Internship in Biology (to be taken in final semester)	3
CHEM 343	Biochemistry I Laboratory	3

Elective Courses (8–13 Units)

Code	Title	Units
Select 2 lecture and 2 laboratory courses from the following:		
BIOL 350 & BIOL 351GW	Cell Biology and Experiments in Cell and Molecular Biology - GVAR	7
BIOL 357	Molecular Genetics	3
BIOL 420	General Virology	3
BIOL 430	Medical Microbiology	3
BIOL 431	Medical Microbiology Laboratory	2
BIOL 435 & BIOL 436	Immunology and Immunology Laboratory	5
BIOL 781	Biomedical Virology Foundations	3
BIOL 803	Core Concepts of Biotechnology	3