BIOTECHNOLOGY

Certificate of Achievement
Career/Technical (Major Code: 01511)

Provides training in the theory and practices of biotechnology, which include introduction to microbiology, cell biology, and molecular biology techniques. Each participant is required to take a qualifying examination prior to certification.

Program Student Learning Outcome

- Demonstrate skills, based on biotechnology industry requirements, necessary to successfully apply, interview and perform in biotechnology research internships and/or professional jobs.

Gainful Employment

The U.S. Department of Education requires colleges to disclose a variety of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation."

Students who complete this program will have acquired the necessary analytical tools to successfully secure gainful employment in the field of study.

For more information regarding the data provided for this program and what it means to you as a student, please feel free to visit our SWC Gainful Employment website at: www.swccd.edu/gainfulemployment (http://www.swccd.edu/gainfulemployment/).

by MATH 62 or higher-numbered math courses except MATH 100, MATH 110, MATH 111, MATH 112, or MATH 115.

Some courses within this program may require additional coursework that must be completed prior to enrollment in these courses. Please consult the individual course listings for prerequisites and any other limitations on enrollment.

First Semester		Units
MATH 72	INTERMEDIATE ALGEBRA I AND II (STEM/BUS) *	2-6
or		
MATH 62	or INTERMEDIATE ALGEBRA II (STEM/BUS)	
	Units	**2-6**
Second Semester		
BIOL 100	PRINCIPLES OF BIOLOGY *	3
BIOL 101	PRINCIPLES OF BIOLOGY LABORATORY *	1
BIOL 205	DNA SCIENCE I	2
BIOL 229	INTRODUCTION TO BIOLOGICAL RESEARCH I	3
CHEM 170	PREPARATION FOR GENERAL CHEMISTRY	4-5
or	or GENERAL CHEMISTRY I	
CHEM 200		
	Units	**13-14**
Third Semester		
BIOL 206	DNA SCIENCE II	2
BIOL 211	INTRODUCTION TO CELL AND MOLECULAR BIOLOGY	4
BIOL 230	INTRODUCTION TO BIOLOGICAL RESEARCH II	3
BIOL 265	GENERAL MICROBIOLOGY	4
	Units	**13**
	Total Units	**28-33**

* Higher-numbered courses are also acceptable: BIOL 210 can replace BIOL 100/BIOL 101; CHEM 170 or CHEM 200 can be replaced by higher-numbered chemistry courses; and MATH 72 can be replaced