



CURRICULUM GUIDE 2014-2015

BIOTECHNOLOGY: BIO-MANUFACTURING

Certificate of Achievement in Biotechnology: Bio-Manufacturing

This certificate program provides students with an excellent preparation in various protocols and hands-on laboratory skills used in many biotechnology companies. A goal of the program is to prepare students for entry-level positions in biotech and pharmaceutical companies. This certificate prepares students as laboratory assistants and biomanufacturing technicians.

Requirements for Certificate of Achievement:

- a) Complete Major Field courses as indicated below.
- b) Complete at least six units at Ohlone College.
- c) Maintain a 2.0 grade point average in Major Field courses.

Student Learning Outcomes

1. Apply industrial standards in recording laboratory procedures and results in a laboratory notebook.
2. Demonstrate the use of common laboratory equipment such as micropipettors, spectrophotometers, electrophoretic equipment, pH meters, thermocyclers, bioreactors, etc.
3. Prepare buffers and other laboratory stock and working solutions to proper specifications.
4. Practice proper laboratory safety.

MAJOR FIELD

BIOT-105	Introduction to Cell and Molecular Biology	4
BIOT-110A	DNA and Protein Purification and Analysis	3
BIOT-113	GMP/GLP and Writing SOP's	1.5
BIOT-115A	Mammalian Cell Culture Techniques	1
BIOT-115B	Bioreactor Cell Culture Techniques	1
BIOT-119	Clean Room Operations	.5
BIOT-121	Biotechnology Careers	1
CHEM-109	Biochemistry for Health Science and Biotechnology	<u>4</u>

Total Required Units: 16

OPTIONAL COURSES (RECOMMENDED)

BIOT-112	Introduction to Bioinformatics	(2)
BIOT-117	Immunology	(1)
BIOT-203	Biotechnology Internship	(3)
CAOT-148	Computer Applications in Biotechnology	(.5)