



## CURRICULUM GUIDE 2019-2020

### BIOTECHNOLOGY: BIO-MANUFACTURING

#### Certificate of Achievement in Biotechnology: Bio-Manufacturing

The Certificate of Achievement in Biotechnology: Bio-Manufacturing provides students with 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:

- Complete Major Field courses.
- Complete at least six units at Ohlone College.
- Maintain a 2.0 grade point average in Major Field courses.

#### Student Learning Outcomes

- Apply industrial standards in recording laboratory procedures and results in a laboratory notebook.
- Demonstrate the use of common laboratory equipment such as micropipettes, spectrophotometers, electrophoresis equipment, pH meters, thermocyclers, bioreactors, etc.
- Prepare buffers and other laboratory stock and working solutions to proper specifications.
- 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 SOPs	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
CAOT-148	Computer Applications in Biotechnology	.5
CHEM-109	Biochemistry for Health Science and Biotechnology	4

Total Required Units: 16.5