



**CURRICULUM GUIDE
2009-2010**

BIOTECHNOLOGY: BIO-MANUFACTURING

Certificate of Achievement

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 research assistants and biomanufacturing technicians. It provides excellent preparation in laboratory skills used in entry-level positions at many biotechnology and pharmaceutical companies.

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.

MAJOR FIELD

BIOT-105	Introduction to Cell and Molecular Biology	4
BIOT-110A1	Introduction to DNA Techniques	1
BIOT-110A2	PCR I and DNA Sequencing	1
BIOT-110A3	Protein Isolation and Assays	1
BIOT-111A	Genomic and cDNA Library Construction and Analysis	1
BIOT-111B	PCR Primer Design and Optimization and Reverse Transcription	1
BIOT-113	GMP/GLP	1
BIOT-115A	Mammalian Cell Culture Techniques	2
BIOT-121	Biotechnology Careers	1
BIOT-123	Writing SOPs	.5
CHEM-109	Biochemistry for Health Science and Biotechnology	4
		17.5

OPTIONAL COURSES (RECOMMENDED)

BIOT-112	Introduction to Bioinformatics	(2)
BIOT-114	Introduction to Plant Biology	(3)
BIOT-115B	Bioreactor Cell Culture Techniques	(2)
BIOT-117	Immunology	(1)

(continued)

BIOT-119	Clean Room Operations	(.5)
BIOT-120	Introduction to Scanning Electron Microscopy	(1)
BIOT-122	Introduction to Nanotechnology	(3)
BIOT-131	Computing Concepts in Biotechnology	(4)
BIOT-132	DNA Computing	(1)
BIOT-133	Introduction to SAS Programming	(3)
BIOT-143	Advanced SAS Programming	(3)
BIOT-203	Biotechnology Internship	(3)