



## CURRICULUM GUIDE 2011-2012

### BIOTECHNOLOGY: QUALITY CONTROL/RESEARCH ASSOCIATE

#### Certificate of Achievement in Biotechnology: Quality Control/Research Associate

The Certificate of Achievement in Biotechnology: Quality Control/Research Associate is designed to train students in methods and techniques used in biotechnology QA/QC and research settings. Courses in this program train students in DNA and protein laboratory techniques and assays, laboratory record keeping, sterile techniques, advanced PCR procedures, and genomic/cDNA library construction and analytical skills. The program prepares students for entry-level positions in biotechnology/pharmaceutical companies as research assistants, quality control and/or quality assurance assistants/technicians and laboratory assistants/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.

#### 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	1
BIOT-115B	Bioreactor Cell Culture Techniques	1
BIOT-119	Clean Room Operations	.5
BIOT-121	Biotechnology Careers	1
BIOT-123	Writing SOPs	.5
CAOT-148	Computer Applications in Biotechnology	.5
CHEM-109	Biochemistry for Health Science and Biotechnology	4
ENGL-156	Introduction to Report and Technical Writing	<u>3</u>
	Total Required Units:	21.5