CURRICULUM GUIDE
2014-2015

BIOTECHNOLOGY: BIOSTATISTICS

Certificate of Achievement in Biotechnology: Biostatistics

The Certificate of Achievement in Biotechnology: Biostatistics is designed to train students in methods and techniques used in biotechnology statistical analysis. Courses in this program train students in DNA and protein laboratory techniques and assays, laboratory record keeping, sterile techniques, and mathematical analysis of laboratory outcomes. The program prepares students for entry-level positions in bio-manufacturing, biostatistician assistant, clinical data assistant/associate, validation assistant/technician, production planner/scheduler, and research assistant/associate positions requiring skills in statistics.

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 micropipetters, spectrophotometers, electrophoretic equipment, pH meters, thermocyclers, bioreactors, etc.
3. Prepare buffers and other laboratory stock and working solutions to proper specifications.
4. Apply mathematical analysis to laboratory outcomes.
5. 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-112	Introduction to Bioinformatics	2
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
CAOT-148	Computer Applications in Biotechnology	.5
CHEM-109	Biochemistry for Health Science and Biotechnology	4
CS-133	Introduction to SAS Programming	3
ENGL-156	Introduction to Report and Technical Writing	3

MATH-159	Introduction to Statistics	5
		Total Required Units: 29.5