



## **CURRICULUM GUIDE 2016-2017**

### **MOLECULAR BIOLOGY RESEARCH TECHNIQUES**

#### **Certificate of Accomplishment in Molecular Biology Research Techniques**

##### **Requirements for Certificate of Accomplishment:**

- a) Complete satisfactorily the courses listed for the particular certificate.
- b) Complete at least 50% of the required units at Ohlone College.
- c) Maintain a 2.0 grade point average.

##### **MOLECULAR BIOLOGY RESEARCH TECHNIQUES**

This certificate is designed for biology students planning to transfer to a university, to get the hands-on skills in DNA cloning, sequencing, PCR, and other molecular biology techniques that will qualify them to work in research laboratories.

##### **Student Learning Outcomes**

1. Demonstrate an understanding of key theoretical concepts in molecular biology and biotechnology.
2. Demonstrate the ability to keep a legal scientific notebook compatible with biotechnology industry standards.
3. Demonstrate the use of instrumentation and techniques common to the molecular biology laboratory.
4. Practice proper laboratory safety.

BIOL-101A	Principles of Biology--Molecular and Cellular Biology	5
BIOT-110A	DNA and Protein Purification and Analysis	3
BIOT-111A	Genomic and cDNA Library Construction and Analysis	1
BIOT-111B	PCR Primer Design and Optimization and Reverse Transcription PCR	$\frac{1}{10}$