

# BIOTECHNOLOGY MINOR

## Program Learning Outcomes

1. Demonstrate proficiency in general biology concepts and theories, as well as in self-selected biology sub-disciplines in order to succeed in careers and graduate programs.
2. Operate basic scientific instruments necessary for biological investigations such as microscopes, centrifuges, spectrophotometers, electrophoresis equipment and pH meters thus demonstrating competency in basic laboratory skills, cell culture, and field techniques.
3. Design and conduct experiments –both individually and in small groups– using appropriate strategies such as: collect, organize, analyze, interpret, and present quantitative & qualitative data and incorporate them into the broader context of biological knowledge.
4. Analyze and evaluate various types of scientific information including primary research articles, mass media sources and world-wide web information.
5. Disseminate and present biological data with theoretical and historical perspectives –both in oral and written formats– to a diverse audience.
6. Articulate historical, current, and theoretical issues relating to biology and society within a Christ-centered worldview that allows for evaluation of the relationship of scientific theories with ethical and religious perspectives, particularly those common to Pentecostal Christians.

## Requirements

A minor in biotechnology is a great option for students who want to supplement their major with fundamental training in basic scientific principles as well as in specific concepts, techniques, and applications used in biotechnology. The minor in Biotechnology consists of the following 18 units:

| Code               | Title                                                                         | Units     |
|--------------------|-------------------------------------------------------------------------------|-----------|
| BIOT-200<br>& 200L | Introduction to Biotechnology<br>and Introduction to Biotechnology Laboratory | 4         |
| BIOT-403           | Adv. Research Methods in Biotechnology                                        | 3         |
| BIOT-405<br>& 405L | Bioinformatics<br>and Bioinformatics Laboratory                               | 4         |
| BIOT-413           | Cell Culture Techniques                                                       |           |
| BIOL-440<br>& 440L | Molecular Biology<br>and Techniques in Molecular Biology                      | 4         |
| <b>Total Units</b> |                                                                               | <b>15</b> |

