

## **Introduction to Genetics: Current Applications**

Course code: ENV 2500

Total contact hours: 60 hours

Pre-requisite: None.

### **Course Overview**

This introductory course analyzes concepts and applications of genetics. According to scientific literature, this implies using basic theoretical-practical fundamentals in genetics to address problems in various fields.

This course analyzes recent research topics and discusses controversial issues related to biotechnology. It has an essential practical complement using a field tour for the collection and analysis of samples.

Fieldwork and labs will allow the development of several laboratory processes. Students acquire the skills to apply basic molecular techniques such as DNA extraction, polymerase chain reaction (PCR), and electrophoresis. In addition, they will be able to use specialized software for the analysis of DNA sequences.

The course will reference specialized literature to broaden the knowledge about the diverse genetic applications in different fields. We also develop team work skills and leadership during the course, and assertive communication in an oral and written form.