

Master in Molecular Biology and Biotechnology

Welcome

The MS program in Molecular Biology is divided into five semesters with 60 credits distributed in courses that are designed to teach the student the needed concepts to understand modern biology and biotechnology and to acquire the necessary skills to solve the problems of those disciplines. 60% of these courses are theoretical and taught in site using presentations, workshops and other activities. The remaining 40% is individual work in which the student practices using the concepts of cell and molecular biology. Laboratory workshops related to the courses are carried out. In the postgraduate courses there is an emphasis on applied aspects, getting familiar with biotechnology techniques, gaining an entrepreneurial spirit and creating and developing biotechnology companies. These are theoretical and practical courses that include lectures, lab demonstrations, guest lectures and visits to industry and other laboratories of molecular biology and biotechnology. Electives allow students to delve into the area of ??their choice.

Mission

This program trains research teachers and emerging entrepreneurs in Molecular Biology and Biotechnology, able to apply acquired knowledge to the solution of regional, national and global problems regarding human, animal and plant health, industrial production, biodiversity and environmental management.

Objectives

The main objective of the program is to train faculty researchers in Molecular Biology and Biotechnology with an entrepreneurship spirit.

General Objectives

- To train qualified personnel to learn and understand the fundamental concepts of Molecular Biology and Biotechnology.
- Train staff in the general techniques of Molecular Biology and the special branch of Biotechnology of their choice.
- Propose relevant research projects in molecular biology and biotechnology to be developed by students of the program.
- Provide business training in biotechnology.
- Strengthen the research structure of the Universidad Tecnológica in Molecular Biology and Biotechnology.

Specific Objectives

- Develop basic knowledge of physics, chemistry and mathematics applied to biological systems.
- Describe to a molecular level the structure and functioning of biological beings.

- Analyze the general methodology for studying the structure and function of biological macromolecules.
- Learn and practice techniques for the analysis of the structure and function of proteins.
- Learn and practice techniques for the analysis of the structure and function of nucleic acids.
- Provide training to develop original research projects.
- Develop a research project.
- Provide training in modern techniques of information management in the biological area.
- Provide training in the application of general principles to create, design and develop the biotechnology industry.

Fuente:

<http://www2.utp.edu.co/english/masters/107/master-in-molecular-biology-and-biotechnology>

