SCIENCE AND TECHNOLOGY

Chemical Pharmaceutical Biology

Objectives
To prepare professionals that can apply the principles of chemistry and biology in producing goods and providing services for the preservation and restoration of health through clinical diagnosis and the development, production, and control of medicines, and in biotechnology and research, thus guaranteeing the well-being of man and the conservation of the environment.

Student Profile
Students in this program should:
- Enjoy science;
- Be able to analyze and synthesize;
- Be enterprising;
- Enjoy doing research;
- Be able to work in groups.

Areas for Potential Employment
Graduates of this program will be prepared to work for biochemistry and clinical laboratories, laboratories that conduct industrial analyses, the pharmaceutical industry, the cosmetics industry, the chemical and food industries, and also in biotechnology.

First Semester
-General Chemistry
-Physics
-Calculus
-Algebra
-Programming

Second Semester
-Inorganic Chemistry
-Undulatory Systems
-Advanced Calculus
-Physical Chemistry I
-Analysis I
-Basic Science

Third Semester
-Organic Chemistry
-Matter and Energy Balances
-Anatomy and Physiology
-Physical Chemistry II
-Analysis II

Fourth Semester
-Organic Chemistry II
-Biostatistics
-Biochemistry I
-Cellular Biology
-Instrumental Analysis
-The Logic and Philosophy of Science

Fifth Semester
-Organic Chemistry III
-General Microbiology
-Biochemistry II
-Unitary Operations
-Analytical Methods
-Philosophical Anthropology

Sixth Semester
-Quality Control
-Bacteriology
-Pharmacology I
-Genetics
-Immunology
-Pharmaceutical Physical Chemistry

Seventh Semester
Specialty Area: Pharmacy
-Toxicology
-Applied Microbiology
-Pharmacology II
-Chemical and Clinical Analysis
-Pharmaceutical Technology I
-Kinetic Processes and Stability

Seventh Semester
Specialty Area: Microbiological Biochemistry
-Toxicology
-Applied Microbiology
-Pharmacology II
-Clinical-Chemical Analysis
-Applied Immunology
-Normal and Pathological Histology

Eighth Semester
Specialty Area: Pharmacy
-Biopharmacy
-Control of Medication
-Pharmaceutical Therapy
-Knowledge of Pharmaceuticals
-Pharmaceutical Technology II
-Professional Ethics

Eighth Semester
Specialty Area: Microbiological Biochemistry
-Hematology
-Control of Medication
-Mycology
-Clinical-Biochemical Analysis
-Virology
-Professional Ethics

Ninth Semester
Specialty Area: Pharmacy
-Industrial Engineering
-Analytic Development
-Biotechnology
-Development of Medications
-Internship

Ninth Semester
Specialty Area: Microbiological Biochemistry
-Industrial Engineering
-Analytic Development
-Biotechnology
-Parasitology
-Internship