Program Name: Pharmaceutical chemistry

Program Description:

Acquire solid training in the field of drug knowledge and physicochemical analysis methods. Ensure a quality assurance process. Validate drug manufacturing processes and analysis methods for raw materials and packaging items as well as the finished product. Acquire diversified knowledge in the field of the pharmaceutical industry, pharmacology, pharmacotechnology, biology and organic synthesis strategy. Join a research laboratory specializing in the field of therapeutic chemistry and bioactive substances obtained by organic synthesis or by plant extraction (phytochemistry). This student will also be able to integrate into an industrial quality control laboratory for pharmaceutical substances and be able, within the framework of a multidisciplinary dialogue, to collaborate effectively with university research laboratories.

Semester 1 Teaching unit	
fundamental teaching units	Organic chemistry and reaction mechanism
	Analytical Chemistry: Electrochemical Methods and Methods of Extraction and Separation
	Galenic pharmacy and biopharmacy
	Natural plant substances, pharmacognosy
Methodology TU	Knowledge of the drug
	Toxicology – pharmacology
transverse TU	Computer science
	English I
Discovery TU	Pharmaceutical law and intellectual property law
Semester 2 Teaching unit	
fundamental teaching units	Pharmacotechnics
	Stereochemistry and asymmetric synthesis
	Organometallic Chemistry
Methodology TU	Good Manufacturing Practices and Good Laboratory Practices
	Physico-chemical analysis and instrumentation
transverse TU	Computer science II
	English II
Discovery TU	Standardization and metrology

Semester 3 Teaching unit	
fundamental teaching units	Microbiology
	Drug Chemistry
	Chemistry of natural products
Methodology TU	Marketing authorization
	Tutored project
transverse TU	Economics and business management
	Industrial hygiene and safety in pharmaceutical sites
Discovery TU	Bioethics
Semester 4 Teaching unit	Internship in a company sanctioned by a master dissertation