

## MEDICINAL CHEMISTRY

Modality: Bachelor's degree

Completion: minimum: 5 years; maximum: 9 years

Shift: full-time (morning and afternoon)

Vacancies: 40

1st year – 1st semester		
Core	Course	Workload (hours)
Basic	Reading and Text Interpretation in English I	30
	Calculus I	90
Specific	Structural Chemistry	60
	General Chemistry	45
	Experimental General Chemistry	45
Applied	Prospects of Medicinal Chemistry	30
	Intellectual Property	30
1st year – 2nd semester		
Core	Course	Workload (hours)
Basic	Reading and Text Interpretation in English II	30
	Calculus II	90
	Theoretical and Experimental Physics I	75
Specific	General Chemistry II	45
	Organic Chemistry I	75
	Chemical Analysis I	45
Applied	Project Based on Bibliographic Research I	45
2nd year – 1st semester		
Core	Course	Workload (hours)
Basic	Academic Writing	30
	Linear Algebra	60
	Probability and Statistics	60
	Theoretical and Experimental Physics II	75
Specific	Inorganic Chemistry I	60
	Organic Chemistry II	75
Applied	Project Based on Bibliographic Research II	30
2nd year – 2nd semester		
Core	Course	Workload (hours)
Basic	Differential Equations	90
Specific	Physical Chemistry I	75
	Analytical Chemistry II	75
	Experimental Organic Chemistry	60
	Biomolecules	45
Applied	Experimental Research I	60
	Cell and Tissue Biology	30
3rd year – 1st semester		
Core	Course	Workload (hours)
Specific	Physical Chemistry II	75
	Experimental Physical Chemistry I	45
	Instrumental Analysis I	60
Applied	Basic Biochemistry	75
	Physiology	60
	Molecular Biology	30
	Experimental Research II	60
3rd year – 2nd semester		
Core	Course	Workload (hours)
Basic	Bioethics	30
Specific	Physical Chemistry III	75
	Experimental Physical Chemistry II	45
	Instrumental Analysis II	75
	Organic Chemistry III	75
	Molecular Spectroscopy	60
Applied	Basic Pharmacology	40

4th year – 1st semester		
Core	Course	Workload (hours)
Basic	History of Health Sciences	30
Specific	Quantum Chemistry	45
Applied	Heterocyclic Chemistry	60
	Computational Chemistry	60
	Medicinal Chemistry	30
	Pre-Clinical Trials	60
	Immunology	60
	Microbiology	45
4th year – 2nd semester		
Core	Course	Workload (hours)
Basic	Sociology and Anthropology	30
Specific	Inorganic Synthesis	45
Applied	Inorganic Chemistry II	60
	Chemometrics	60
	Chemistry of Natural Products	60
	Drug Molecular Design	60
	Applied Pharmacology	75
5th year – 1st semester		
Core	Course	Workload (hours)
Basic	Education and Health	30
Applied	Entrepreneurship and Innovation	45
	Synthesis of Bioactive Substances	60
	Biotechnology	60
	Bioinorganic Chemistry	60
	Final Paper I	85
	Optional Course I	45
5th year – 2nd semester		
Core	Course	Workload (hours)
Applied	Advanced Seminars	45
	Clinical Studies	45
	Final Paper II	180
	Optional Course II	45
<b>Mandatory Extracurricular Activities</b>		<b>202</b>
<b>Total Required Workload (hours)</b>		<b>4,047</b>