

MEDICAL PHYSICS*

Modality: Bachelor's degree

Completion: minimum: 4,5 years; maximum: 8 years

Shift: full-time (afternoon and evening)

Vacancies: 40

1st year – 1st semester				
Core	Area of study	Course	Workload (hours)	
Basic	Human and Social Sciences	Academic Writing	30	
		Reading and Text Interpretation in English I	30	
	Biological and Health Sciences	Anatomy	60	
		Biophysics	60	
	Exact Sciences	Calculus and Analytical Geometry I	90	
Specific	Sciences of Medical Physics	Introduction to Medical Physics	30	
1st year – 2nd semester				
Core	Area of study	Course	Workload (hours)	
Basic	Human and Social Sciences	History of Health Sciences	30	
		Reading and Text Interpretation in English II	30	
		Epidemiology	30	
		Biochemistry	60	
	Exact Sciences	Calculus and Analytical Geometry II	90	
		Physics I	60	
		Laboratory I	30	
		Linear Algebra	30	
	2nd year – 1st semester			
	Core	Area of study	Course	Workload (hours)
Basic	Human and Social Sciences	Education and Health	30	
		Accessibility	30	
	Biological and Health Sciences	Physiology	60	
	Exact Sciences	Physics II	60	
		Laboratory II	30	
		Computational Numerical Calculations	60	
		Differential Equations	90	
	2nd year – 2nd semester			
Core	Area of study	Course	Workload (hours)	
Basic	Human and Social Sciences	Bioethics	30	
	Exact Sciences	Biostatistics	30	
		Applied Mathematics	90	
		Physics III	60	
		Laboratory III	30	
Advanced	Exact Sciences	Modern Physics	60	
		Classical Mechanics	60	
3rd year – 1st semester				
Core	Area of study	Course	Workload (hours)	
Basic	Human and Social Sciences	Biosafety	30	
		Scientific Methodology	30	
		Healthcare Administration	30	
	Exact Sciences	Physics IV	60	
		Laboratory IV	30	
Advanced	Exact Sciences	Quantum Physics	60	
		Thermodynamics	60	

Specific	Sciences of Medical Physics	Radiation Physics	60
3rd year – 2nd semester			
Core	Area of study	Course	Workload (hours)
Advanced	Exact Sciences	Statistical Mechanics	60
		Electromagnetism	60
Specific	Sciences of Medical Physics	Laboratory V	30
		Biological Effects of Ionizing Radiation	60
		Ethics and Professional Practice in Medical Physics	30
		Radiological Protection	60
		Professional Practice I	60
4th year – 1st semester			
Core	Area of study	Course	Workload (hours)
Basic	Human and Social Sciences	Health Sociology and Anthropology	30
Advanced	Exact Sciences	Nuclear Physics	60
		Solid State	60
		Signal Analysis I	30
Specific	Sciences of Medical Physics	Physics of Medical Imaging	60
		Nuclear Medicine	60
		Professional Practice II	60
4th year – 2nd semester			
Core	Area of study	Course	Workload (hours)
Basic	Human and Social Sciences	Entrepreneurship	30
Advanced	Exact Sciences	Signal Analysis II	60
Specific	Sciences of Medical Physics	Radiotherapy	60
		Image Processing	60
		Dosimetry	60
		Professional Practice III	60
		Project of Course Completion Work in Medical Physics	30
5th year – 1st semester			
Core	Area of study	Course	Workload (hours)
Specific	Sciences of Medical Physics	Program Completion Work	30
		Mandatory Internship	360
Mandatory Elective Courses			60
Mandatory Extracurricular Activities			150
Total Required Workload (hours)			3,420

* Curriculum approved in 2017.