

Faculty of Sciences and Environment

Domain of study	Level (BA/MA)	Study programme	Year of study	Semester	Course title	Credit units
Mathematics	BA	Mathematics and Computer Science	I	1	Linear Algebra	7
				1	Mathematical Analysis (Differential and Integral calculus on R)	7
				1	Synthetic Geometry	7
				1,2	Algorithms and Programming	6+6
				1,2	English Language	2+2
				1,2	Physical Education	1+1
				2	Fundamental Algebraic Structures	7
				2	Mathematical Analysis (Differential calculus on R^n)	7
				2	Analytical Geometry	7
			II	3	Algebra	6
				3	Mathematical Analysis (Integral calculus on R^n)	7
				3	Differential Geometry	7
				4	Differential Equations	6
				4	Graph Theory and Combinatorics	6
				3	Mathematical Logic	3
				3,4	Physical Education	1+1
				4	Complex Analysis	5
				4	Formal Languages and Automata	6
				3	Object Oriented Programming	6
				4	Traineeship	2
			4	Operating Systems	4	
			III	5	Theory of Probabilities	6
				6	Mathematical Statistics	6
				6	Numerical Analysis	6
				5	Databases	6
				5	Computer Networks	6
				6	Artificial Intelligence	5
				5	Web Technologies	6
6	Criptography and Information Security	6				

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				5	Calculus of Variations	5
			III	6	Arithmetic and Number Theory	6
Mathematics	MA	Didactic Mathematics	I	1	Selected topics in mathematical analysis	7
				1	Selected topics in Geometry	7
				1,3	Selected topics in Algebra	7
				1	Research project	2
				1	Forms and techniques in mathematical communication	7
				2	Complements in mathematical analysis	6
				2	Complements in Geometry	6
				2	Techniques of solving maths problems	6
				2	Number Theory	6
			2	Statistical processing of experimental data	6	
			II	3	Topics in Advanced Geometry and Applications	7
				3	Teaching mathematics for advanced students	7
				3	Mathematical Modeling Techniques	7
				4	History of Mathematics	5
				4	Complements in Algebra	7
4	Writing the Master Thesis	2				
4	Financial Mathematics	4				

Environmental Science	BA	Environmental Science	I	1	General Physics	5
				1	General Chemistry	5
				1	General Ecology	6
				1	Water resources management	5
				1	Vegetal Biology	6
				2	Environmental Organical Chemistry	6
				2	Mathematics	4
				2	Atmosphere and air quality	6

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				2	Environmental Physics	5
				2	Environmental inorganic and analytical Chemistry	6
				1, 2	English	2+2
				1, 2	Physical training	1+1
				1	Mathematics (facultative)	4
				1	Anatomy and hygiene (facultative)	4
			II	3	Environmental Physics - Biophysics	6
				3	General Biochemistry	6
				3	Integrated Environmental Monitoring	5
				4	Soil Science	6
				4	Pollution and protection of the environment	5
				4	Chemical pollution and analysis of the environmental samples	5
				4	Physical Chemistry	5
				3, 4	Physical training	1+1
				4	Practice	2
				3	Environmental Law Science/Environmental Economy (optional)	6
				4	Basics of Ecotoxicology/Chemistry of natural products (optional)	6
				3	Ecological processes modeling/Cartography, Remote sensing, GIS (optional)	6
				3	Physical phenomena modeling of with applications in environmental science (facultative)	4
				3	Elements of entrepreneurial education in environmental management (facultative)	2
			4	Chemical phenomena modeling of with applications in environmental science (facultative)	4	
			III	5	Environmental radioactivity	6
				5	Methodology of drafting impact studies	5
				5	Environmental pollution by physical agents	6
				6	Alternative energies	6
				6	Methods of spectral analysis	6

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				5	General Physical Geography	4
				6	Elaboration of the Bachelor degree thesis	2
				5	Meteorology and Climatology/Global changes (optional)	6
				6	Environmental Geology/Elements of Geophysics (optional)	6
				6	Assessing the impact of human activities on the environment/Ecological Statistics	5
				6	Environmental Geography/ Global biogeophysical cycles (optional)	5
				5	Environmental Monitoring Systems/Nanotechnologies in environmental studies (optional)	3
				5	Advanced interdisciplinary studies of physical-chemical phenomena with applications in the environmental science (facultative)	4
				6	Environmental economics and private initiative (facultative)	2
				6	Microbiology (facultative)	2

Exact Sciences	BA	Chemistry	I	2	Physics	5
				1	Mathematics	4
				1	Informatics	4
				1	General Chemistry	5
				1,2	Analytical Chemistry	7.7
				1	Inorganic Chemistry. Nonmetals	6
				2	Inorganic Chemistry. Metals I	7

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Exact Sciences	BA	Chemistry		2	Physical Chemistry. Molecular structure	7
				1,2	Foreign Languages	2,2
				1,2	Physical Education	2,2
			II	3	Fundamentals of Organic Chemistry	7
				4	Organic Chemistry. Organic compounds with functional groups	6
				3	Inorganic Chemistry. Metals II	8
				4	Electrochemistry	5
				3	Physical Chemistry. Thermodynamics	7
				4	Physical Chemistry. Kinetics	7
				3	Colloids	6
				4	Macromolecular compounds	4
				4	Coordination Chemistry	5
				III	5	Organic Chemistry. Heterocyclic compounds
			5		Analytical Chemistry. Instrumental Analyses	7
			5		Physico-chemical fundamentals of chemical technology	7

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				6	Biotechnologies and Biocatalysis	6
				5	Environmental Chemistry	6
				6	Optional CHEMISTRY 3 (Analytical biochemistry/Natural compounds)	6
				5	Optional CHEMISTRY 4 (Catalysis/Quality assurance and standardisation)	3
				6	Optional CHEMISTRY 5 (Toxicology/Ecotoxicology)	7
				6	Optional CHEMISTRY 6 (Statistics and data processing in chemistry/ Computational chemistry)	7