



**UNIVERSITY OF MINING AND GEOLOGY
"ST. IVAN RILSKI"
SOFIA**

FACULTY OF GEOLOGY AND EXPLORATION

CURRICULUM

PROFESSIONAL DIRECTION	4.4. EARTH SCIENCES
SPECIALTY	ECOTECHNOLOGIES AND ENVIRONMENTAL PROTECTION
EDUCATIONAL-QUALIFICATION DEGREE	MASTER
PROFESSIONAL QUALIFICATION	ECOLOGIST
FORM OF EDUCATION	REGULAR
PERIOD OF STUDY	1,5 YEARS

Adopted at a meeting of the AC of UMG "St. Ivan Rilski":
Protocol № 12 / 18.12. 2017г.

HEAD OF DEPARTMENT ENG. GEOECOLOGY :
(Assoc. Prof. A. Angelov, PhD, Eng.)

DEAN:

(Assoc. Prof. E. Zaneva-Dobranova, PhD)

МИННО-ГЕОЛОЖКИ УНИВЕРСИТЕТ „СВ. ИВАН РИЛСКИ“ – гр. СОФИЯ



UNIVERSITY OF MINING AND GEOLOGY „ST. IVAN RILSKI“ – SOFIA

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ANOTATION of the Master Programme

“ECOTECHNOLOGY AND ENVIRONMENTAL PROTECTION”

The Master’s Programme in “Ecotechnologies and Environmental Protection” prepares for future career highly qualified specialists ready to meet the contemporary challenges of the industry and society. In addition to the solid academic knowledge, the programme allows to the students to develop a variety of practical skills outside of the university thanks to our close partnerships with authoritative and international companies in the branch. The senior graduate students who chose this specialty will be trained in the environmental impact of the energy and mineral industry sectors on the environment as well as in the implementation of efficient and environmental friendly ecotechnological solutions, adapted to the local social conditions for sustainable industrial development and economic growth. The programme covers varied aspects of the latest methods of the sustainable engineering that can reduce the damage on the ecosystems, remediate the polluted water and soil, manage the wastes and ensure conservation of the biodiversity. All kinds of manufactures wish to hire such specialists, because all of these manufactures must satisfy strict environmental regulations and be sure that they deal with the best eco-friendly practices. The educational approach is multidisciplinary, involving close cooperation between European and world-famous scientists with high reputation, together with a numerous experts and representatives of the business society. Graduates of this specialty can find jobs as experts-ecologist in various industries, at the market for ecotechnology and environmental innovations, in the scientific and governmental institutions in the member countries of European Union as well as in the whole world. The Master's program "Ecotechnologies and Environmental Protection" is only in paid form.

HEAD OF DEPARTMENT ENG. GEOECOLOGY:

(Assoc. Prof. A. Angelov, PhD)

Year	Semester	By №	Code of the discipline	Full name of the discipline	Form of control	Weekly workload		Total workload for the semester	Credits	
						L	E/S			
First	First	1.	172127	<u>Compulsory:</u> 1. Environmental chemistry	Exam	3	3	90	6,0	
		2.	292115	2. Impact of mining and mineral processing on natural water bodies	Exam	3	3	90	6,0	
		3.	121159	3. Environmental Geology	Exam	2	2	60	5,0	
		4.	142145	4. Environmental Geophysics	Exam	3	3	90	6,0	
		5.		<u>5. Elective (one of the two):</u>						
			272172	5.1. Management of environmental impacts	Exam	3	1	60	5,0	
		271162	5.2. Economic assessment of environmental impacts	Exam	3	1	60	5,0		
			<i>Total for the first semester:</i>		14	12	390	28		
		Second	6.	172173	<u>Compulsory :</u> 6. Waste management	Exam	3	3	90	6,0
	7.		172174	7. Biotechnological systems for environmental protection	Exam	3	3	90	6,0	
	8.		112161	8. Environmental Geochemistry	Exam	3	3	90	6,0	
	9.		362117	9. Modeling of ecological processes	Exam	3	3	90	6,0	
	10.			<u>10. Elective (one of the two):</u>						
			172158	10.1. Biosensors and bioindicators	Exam	3	3	90	6,0	
		172168	10.2. Ecotoxicology	Exam	3	3	90	6,0		
		<i>Total for the second semester:</i>		15	15	450	36			
Se	Th			Pre-graduate practice and Master Thesis defence				30	15	
				<i>Total number of hours and credits for the entire training course:</i>				870	85	