



**University of Mining and Geology  
"St. Ivan Rilski"**

**THE FACULTY OF GEO-EXPLORATION**

## **Curriculum**

VOCATIONAL FIELD

**4.4. EARTH SCIENCES**

COURSE OF STUDIES

**WASTE MANAGEMENT AND TREATMENT**

**MASTER'S DEGREE**

VOCATIONAL QUALIFICATION

**MASTER ECOLOGIST**

FORM OF STUDY

**PART-TIME**

DURATION OF STUDY

**A YEAR AND A HALF (THREE SEMESTERS)**

Adopted at a session of the Academic Council of the University of Mining and Geology "St. Ivan Rilski"

HEAD OF DEPARTMENT OF *ENGINEERING*  
*GEOECOLOGY* :

(Assoc. Prof. An. Angelov, Ph.D.)

DEAN:

(Assoc. Prof. B. Valchev, Ph.D.)

Sofia, 2021

**CURRICULUM**  
**EDUCATIONAL QUALIFICATION DEGREE "MASTER"**  
**SPECIALTY "WASTE MANAGEMENT AND TREATMENT"**  
**PROFESSIONAL FIELD 4.4 "EARTH SCIENCES"**

FORM OF TRAINING: distance learning

DURATION OF STUDY: 1.5 YEARS

Duration of the semester: 15 weeks

Year	Semester	№	Discipline code	Full name of the course (course projects, internships)	Form of control	Weekly hours		Hours by type of exercise			Classroom employment	Credits	
						L	E	SE	LE	PE			
First	First	1	172127	Environmental chemistry	E	15	23	8	15		38	5	
		2	172170	Environmental risk assessment	E	15	15	7	8		30	5	
		3	172168	Ecotoxicology	E	23	23	15	8		38	6	
		4	172164	Environmental procedures and permit regimes	E	15	15	15			30	5	
		5	172171	Processing and recycling of household waste	E	15	15	7	8		30	5	
		6		<b>Elective course from:</b>	E								
		142216	Geophysical methods in ecology		15	15	8	15		30	4		
		132249	Ecological mineralogy										
	<b>Total for the first semester</b>					<b>6</b>	<b>98</b>	<b>106</b>	<b>60</b>	<b>54</b>	<b>0</b>	<b>196</b>	<b>30</b>
	Second	7	172172	Management and processing of industrial and especially hazardous waste	E	15	23	23			38	5	
		8	172167	Soil quality management	E	15	23	15	8		38	6	
		9	172166	Water quality management	E	15	23	15	8		38	5	
		10	272154	Sustainable Development	E	15	15	15			30	5	
		11	172136	Management of damaged terrains and landscapes from mining activities	E	15	15	7	8		30	4	
		12		<b>Elective course from:</b>	E								
		122244	Geocological modeling in GIS	CS	15	23	23			38	5		
		172258	Biosensors and bioindicators	E			8	15					
	<b>Total for the second semester</b>					<b>5+1</b>	<b>90</b>	<b>122</b>	<b>83</b>	<b>39</b>	<b>0</b>	<b>212</b>	<b>30</b>
<b>Total for the first year</b>					<b>11+1</b>	<b>188</b>	<b>228</b>	<b>143</b>	<b>93</b>	<b>0</b>	<b>408</b>	<b>60</b>	
Second	Third			Undergraduate internship and defense of Diploma Thesis		15 days x 6 hours					45	15	
<b>Total for the second year</b>											45	15	
<b>TOTAL FOR THE ENTIRE TRAINING COURSE</b>					<b>11+1</b>	<b>188</b>	<b>228</b>	<b>143</b>	<b>93</b>	<b>0</b>	<b>453</b>	<b>75</b>	

Signs: E -exam, CS- current assessment, L - lectures, LE - laboratory exercises, SE- seminar exercises, PE - practical exercises

Parameters of the learning process:

Total hours for the training course:	<b>453</b>
Classroom employment:	<b>453</b>
Lectures:	<b>188</b>
Exercises:	<b>228</b>
- seminar	<b>143</b>
- laboratory	<b>93</b>
Extracurricular activities (study practices):	
Number of exams for the training course:	<b>11</b>
Number of current ratings:	<b>1</b>