



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

**THE FACULTY OF GEO-EXPLORATION**

## **Curriculum**

VOCATIONAL FIELD

**4.4. EARTH SCIENCES**

COURSE OF STUDIES

**ECOTECHNOLOGIES AND ENVIRONMENTAL PROTECTION**

**MASTER'S DEGREE**

VOCATIONAL QUALIFICATION

**MASTER ECOLOGIST**

FORM OF STUDY

**FULL-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 AND QUALIFICATION DEGREE "MASTER"**  
**COURSE OF STUDY: ECOTECHNOLOGY AND ENVIRONMENTAL PROTECTION**  
**VOCATIONAL FIELD: 4.4 EARTH SCIENCES**

FORM OF TRAINING: FULL-TIME

DURATION OF STUDY: 1.5 YEARS

Duration of the semester: 15 weeks

Year	Semester	№	Course unit code	Full name of the course units (course projects, practical training)	Form of control	Teaching hours (weekly)		Overall teaching hours by type of seminar			Overall academic	Credits acc. to ECTS
						L	S	S	Lab	P		
First	First	1	172127	Environmental chemistry	E	3	3	45			90	6
		2	292114	Impact of mining and mineral processing on natural water bodies	E	3	3	15	30		90	6
		3	122148	Environmental Geology	E	2	2	30			60	6
		4	142148	Environmental Geophysics	E	3	3	15	30		90	6
		5	272228 272253	<b>Elective (one of the two):</b> Management of environmental impacts Economic assessment of environmental impacts	E	2	2	15	15		60	6
	<b>Total for the first semester</b>					<b>6</b>	<b>13</b>	<b>13</b>	<b>120</b>	<b>75</b>	<b>390</b>	<b>30</b>
	Second	6	172169	Waste Management	E	2	3	45			75	7
		7	172148	Biotechnological systems for environmental protection	E	2	3	30	15		75	7
		8	112161	Environmental Geochemistry	E	2	2	15	15		60	5
		9	122144	Geocological modeling in GIS	E	1	3	45			60	5
10		172258 172268	<b>Elective (one of the two):</b> Biosensors and bioindicators Ecotoxicology	E	2	3	15	30		75	6	
<b>Total for the second semester</b>					<b>5+1</b>	<b>9</b>	<b>14</b>	<b>150</b>	<b>60</b>	<b>0</b>	<b>345</b>	<b>30</b>
<b>Total for the first year</b>					<b>9+1</b>	<b>22</b>	<b>27</b>	<b>270</b>	<b>135</b>	<b>0</b>	<b>735</b>	<b>60</b>
Second	Third			Development and defence of the diploma paper	15 days x 6 hours					90	15	
<b>Total for the second year</b>											90	15
<b>TOTAL FOR THE ENTIRE TRAINING COURSE</b>					<b>9+1</b>	<b>22</b>	<b>27</b>	<b>270</b>	<b>135</b>	<b>0</b>	<b>825</b>	<b>75</b>

Abbreviations: E - examination; CA - continuous assessment; L - lectures; Lab - laboratory seminars; S - seminars; P - practical seminars

Parameters of the learning process:

Total hours for the training course: **825**

Classroom employment: **825**

Lectures: **420**

Exercises: **405**

- seminar **270**

- laboratory **135**

- practical **-**

Number of exams for the training course: **11**

Number of current ratings: **1**