



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

**THE FACULTY OF GEO-EXPLORATION**

## **Curriculum**

VOCATIONAL FIELD

**4.4. EARTH SCIENCES**

COURSE OF STUDIES

**WATER QUALITY MANAGEMENT**

**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 QUALIFICATION DEGREE "MASTER"**  
**SPECIALTY "WATER QUALITY MANAGEMENT"**  
**PROFESSIONAL FIELD 4.4 "EARTH SCIENCES"**

FORM OF TRAINING: REGULAR

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	2	3	15	30		75	5	
		2	172128	Systems for regulation of purification processes	E	2	2	15	15		60	5	
		3	172129	Reactor technology in geoecology	E	3	3	30	15		90	5	
		4	172164	Environmental procedures and permit regimes	E	2	2	30			60	5	
		5	152111	Protection of groundwater	E	2	2	30			60	5	
		6		<b>Elective course from:</b>	E	2	2	15	15		60	5	
		172168	Ecotoxicology										
		172231	Radioecology										
	<b>Total for the first semester</b>					<b>6</b>	<b>13</b>	<b>14</b>	<b>135</b>	<b>75</b>	<b>0</b>	<b>405</b>	<b>30</b>
	Second	Second	7	292114	Chemical and physico-chemical methods for water purification	E	2	2	30			60	4
			8	172130	Industrial wastewater treatment	E	2	3	30	15		75	6
			9	172165	Biological methods for water purification	E	2	3	15	30		75	5
			10	282111	Modern methods for structural and quantitative analysis	E	2	2	15	15		60	5
			11	172158	Biosensors and bioindicators	E	2	3	15	30		75	5
			12		<b>Elective course from:</b>	E	2	2	15	15		60	5
			172269	Waste Management									
			172236	Management of damaged terrains and landscapes from mining activities									
	<b>Total for the second semester</b>					<b>6</b>	<b>12</b>	<b>15</b>	<b>120</b>	<b>105</b>	<b>0</b>	<b>405</b>	<b>30</b>
<b>Total for the first year</b>					<b>12</b>	<b>25</b>	<b>29</b>	<b>255</b>	<b>180</b>	<b>0</b>	<b>810</b>	<b>60</b>	
Second	Third			Undergraduate internship and defense of Diploma Thesis	15 days x 6 hours					<b>90</b>	<b>15</b>		
<b>Total for the second year</b>											<b>90</b>	<b>15</b>	
<b>TOTAL FOR THE ENTIRE TRAINING COURSE</b>					<b>12</b>	<b>25</b>	<b>29</b>	<b>255</b>	<b>180</b>	<b>0</b>	<b>900</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: **900**

Classroom employment: **900**

Lectures: **465**

Exercises: **435**

- seminar **255**

- laboratory **180**

Number of exams for the training course: **12**

