



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

FACULTY OF MINING TECHNOLOGY

## CURRICULUM

VOCATIONAL FIELD:	5.8. EXPLORATION, MINING, AND PROCESSING OF MINERALS
COURSE OF STUDY:	UNDERGROUND MINING OF MINERALS
EDUCATIONAL AND QUALIFICATION DEGREE:	MASTER
PROFESSIONAL QUALIFICATION:	MINING ENGINEER IN UNDERGROUND MINING OF MINERALS
FORM OF STUDY:	FULL-TIME
DURATION OF STUDY:	1,5 YEARS (three semesters)

Adopted at a session of the Academic Council of the University of Mining and Geology "St. Ivan Rilski":  
**Minutes № 10/6<sup>th</sup> July 2021**

HEAD OF DEPARTMENT OF DEVELOPMENT OF MINERALS: \_\_\_\_\_  
(Assoc. Prof. E. Aleksandrova, PhD)

DEAN: \_\_\_\_\_  
(Prof. D.Sc. Valery Mitkov)

# CURRICULUM

EDUCATIONAL AND QUALIFICATION DEGREE: MASTER  
 COURSE OF STUDY: UNDERGROUND MINING OF MINERALS  
 PROFESSIONAL QUALIFICATION: MINING ENGINEER IN UNDERGROUND MINING OF MINERALS

VOCATIONAL FIELD: 5.8. EXPLORATION, MINING, AND PROCESSING OF MINERALS

FORM OF STUDY: FULL-TIME

DURATION OF STUDY: 1,5 YEARS (three semesters)

DURATION OF EACH SEMESTER: 1<sup>st</sup> and 2<sup>nd</sup> - 15 weeks, 3<sup>rd</sup> - 12 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 load per semester	Credits acc. to ECTS	
						L	S	S	Lab	P			
First	First	1	212143	Applied Geomechanics	E	2	3	45			75	7	
		2	112129	Mining Geology	E	2	1	15			45	4	
		3	212144	Contemporary Technologies in Underground Mining of Minerals	E	2	3	45			75	7	
		4	212145	Course project in Contemporary Technologies in Underground Mining of Minerals	CA	0	1	15			15	1	
		5	212146	Specialised Software for Solving Mining and Technical Tasks	E	2	3			45	75	7	
		6	272143	Introduction to the Principles of Circular Economy	E	2	1	15			45	6	
				<i>Optional:</i>									
		372300	Physical Education and Sports	CA*		2			30	30	1*		
	<b>Overall for the first semester</b>					<b>5+1</b>	<b>10</b>	<b>12</b>	<b>135</b>	<b>0</b>	<b>75</b>	<b>360</b>	<b>32</b>
	Second	Second	7	212147	Contemporary Technologies in Underground Mining of Minerals (for Bedded Deposits)	E	2	3	45			75	7
			8	212148	Course project in Contemporary Technologies in Underground Mining of Minerals (for Bedded Deposits)	CA	0	1	15			15	1
			9	212149	Assessment of Mineral Deposits	E	2	2	30			60	6
			10	262116	Systems for Mine Ventilation and Cooling	E	2	1	15			45	5
			11	262117	Mine Safety	E	2	1	15			45	5
12			212150	Blasting Production Processes	E	3	3	45			90	7	
				<i>Optional:</i>									
	372300	Physical Education and Sports	CA*		2			30	28	1*			
<b>Overall for the second semester</b>					<b>5+1</b>	<b>11</b>	<b>11</b>	<b>165</b>	<b>0</b>	<b>30</b>	<b>330</b>	<b>31</b>	
<b>Overall for the first year</b>					<b>10+2</b>	<b>21</b>	<b>23</b>	<b>300</b>	<b>0</b>	<b>105</b>	<b>690</b>	<b>63</b>	
Second	Third	1	212151	Design of Underground Mines	E	3	4	48			84	7	
		2	212152	Course project in Design of Underground Mines	CA		2	24			24	1	
		3	212153	Environmental Issues, Closing-Down, and Reclamation in Underground Mining of Minerals	E	2	3	36			60	4	
				<i>Optional:</i>									
			372300	Physical Education and Sports	CA*		2			24	28	1*	
		4	212178	Pre-diploma practice, 10 days (60 academic hours)	CA						60	3	
				<b>Overall for the third semester</b>	<b>2+2</b>	<b>5</b>	<b>9</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>168</b>	<b>15</b>	
<b>Overall for the second year</b>					<b>2+2</b>	<b>5</b>	<b>9</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>168</b>	<b>15</b>	
<b>Development and defence of a diploma thesis</b>											15		
<b>OVERALL FOR THE FULL COURSE OF STUDY</b>					<b>12+4</b>	<b>26</b>	<b>32</b>	<b>408</b>	<b>0</b>	<b>105</b>	<b>858</b>	<b>93</b>	

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

### Parameters of the Curriculum:

Overall teaching hours for the full course of study:	858 hours
Academic load:	828 hours
lectures:	375 hours
seminars:	453 hours
Extracurricular load (practical training):	60 hours
Number of exams:	12
Items of continuous assessment:	4