



FACULTY OF GEOLOGY AND EXPLORATION

C U R R I C U L U M

<u>VOCATIONAL FIELD:</u>	4.4. EARTH SCIENCES
<u>COURSE OF STUDY:</u>	APPLIED GEOPHYSICS
<u>EDUCATIONAL AND QUALIFICATION DEGREE:</u>	MASTER
<u>VOCATIONAL QUALIFICATION:</u>	ENGINEER AND GEOPHYSICIST
<u>FORM OF STUDY:</u>	FULL-TIME
<u>DURATION OF STUDY:</u>	1 YEAR

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

Minutes № 10 / 06th July 2021

HEAD OF DEPARTMENT "APPLIED GEOPHYSICS":

(Prof. St. Dimovski, D.Sc.)

DEAN:

(Assoc. Prof. Dr. B. Valchev)

CURRICULUM
EDUCATIONAL AND QUALIFICATION DEGREE: MASTER
COURSE OF STUDY: APPLIED GEOPHYSICS
VOCATIONAL FIELD: 4.4. EARTH SCIENCES

FORM OF STUDY: FULL-TIME

DURATION OF STUDY: 1 YEAR

DURATION OF EACH 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 load per semester	Credits acc. to ECTS	
						L	S	S	Lab	P			
First	First	1	142131	Methods of Solving Ill-Conditioned Problems in Geophysics	E	3	3	15	30		90	7	
		2	142132	Engineering Geophysics	E	3	3		30	15	90	7	
		3	142102	Pre-Processing and Graphical Presentation of Geophysical Data	CA	2	3		45		75	5	
		4	142133	Statistical Methods of Analysis, Processing, and Interpreting of Geophysical Data	E	2	3		45		75	6	
		5	142234	<i>Elective course unit</i> - Applied Mathematics	E	2	3	45				75	5
		142235	- Radiowave Methods and Equipment in Geophysics										
		142236	- Physical Field Theory										
			222300	Foreign Language – <i>Optional course unit</i>									
			372300	Physical Education and Sports – <i>Optional course unit</i>									
	Overall for the first semester					4+1	12	15	60	150	15	405	30
	Second	Second	6	142137	Exploration Geophysics	E	3	3		30	15	90	7
			7	142140	Earth Magnetism and Geoelectrical Fields	E	3	3		30	15	90	7
			8	142141	Gravimetry	E	2	3		30	15	75	5
			9	142242	<i>Elective course unit</i> - Analysis and Automatic Processing of Geophysical Signals	CA	2	3		45			75
142243			- Numerical Processing of Images										
10			142244	<i>Elective course unit</i> - Seismology and Fundamentals of Seismic Zonation	E	2	3	15	30			75	6
142246			- Geothermics										
142245	- Seismotectonics												
		222300	Foreign Language – <i>Optional course unit</i>										
		372300	Physical Education and Sports – <i>Optional course unit</i>										
Overall for the second semester					4+1	12	15	15	165	45	405	30	
Overall for the first year					8+2	360	450	75	315	60	810	60	
Development and defence of the diploma paper												15	
OVERALL FOR THE FULL COURSE OF STUDY					8+2	360	450	75	315	60	810	75	

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:	810
Academic load:	810
Lectures:	360
Seminars:	450
- seminars	75
- laboratory seminars	315
- practical seminars	60
Number of exams:	8
Items of continuous assessment	2