



UNIVERSITY OF MINING AND GEOLOGY "ST. IVAN RILSKI"

SOFIA

FACULTY OF MINING TECHNOLOGY

CURRICULUM

VOCATIONAL FIELD:	5.8 EXPLORATION, MINING AND PROCESSING OF MINERAL RESOURCES
COURSE OF STUDY:	MINERAL PROCESSING AND RECYCLING
EDUCATIONAL AND QUALIFICATION DEGREE:	BACHELOR
VOCATIONAL QUALIFICATION:	ENGINEER IN MINERAL PROCESSING AND RECYCLING
FORM OF STUDY:	FULL - TIME
DURATION OF STUDY:	FOUR YEARS

Adopted at a session of the Academic Council at the University of Mining and Geology "St. Ivan Rilski":
Minutes № 11 / 10.07.2017

HEAD OF DEPARTMENT OF MINERAL PROCESSING AND RECYCLING:

(Assoc. Prof. DSc. I. Grigorova)

DEAN: _____

(Prof. Dr. I. Koprev)

SOFIA, 2017

CURRICULUM

EDUCATIONAL AND QUALIFICATION DEGREE: BACHELOR
COURSE OF STUDY: "MINERAL PROCESSING AND RECYCLING"

VOCATIONAL FIELD: 5.8 EXPLORATION, MINING AND PROCESSING OF MINERAL RESOURCES

FORM OF STUDY: FULL-TIME
DURATION OF STUDY : 4 YEARS
Duration of semesters: 14 weeks
Duration of 8th semester: 10 weeks

Year	Semester	№	Course unit code	Full name of the course unit (course projects, practical trainings)	Form of control	Teaching hours (weekly)		Total workload for the semester by type of exercises			Overall teaching hours per semester	Credits	
						L	S	S	L	P			
First	First	1	361101	Higher Mathematics - Part I (Linear Algebra and Analytical Geometry)	Exam	2	2	28			56	5	
		2	291101	General chemistry	Exam	3	3		42		84	7	
		3	371103	Office and CAD Systems	Exam	1	4		56		70	6	
		4	241101	Fundamentals of Mineral Processing and Recycling	Exam	2	4	28		28	84	7	
		5		Optional:	TO	2	2	28			56	5	
			361205	Descriptive Geometry									
			351208	Engineering Drawing									
		6	421100	Foreign Language - Optional	CA		3	42			42	2*	
		431100	Sports - 2 h per week										
	1	121301	General geology (optional)*	Exam	2*	3*		42*		70*	8*		
	First Semester					4+2	10	18	126	98	28	392	30+2*
	Second	Second	7	361102	Higher Mathematics - Part II (Mathematical Analysis of the Function of One Variable)	Exam	2	4	56			84	7
			8	241103	Granulometric Raw Material Preparation	Exam	3	4		56		98	9
9			241105	Practical training: Granulometric Raw Material Preparation	CA						60	4	
10			181102	Physics - Part I	Exam	2	2		28		56	5	
11			291104	Organic chemistry	Exam	2	1		14		42	5	
12			421100	Foreign Language - Optional	CA		3	42			42	2*	
13			431100	Sports - 2 h per week	CA		4				56	2*	
Second Semester					4+3	9	18	98	98		438	30+4*	
Overall for the first year:					8+5	19	36	224	196	28	830	60+6*	
Second	Third	14	131103	Mineralogy and Petrography	Exam	3	2		28		70	7	
		15	181103	Physics - Part II	Exam	2	2		28		56	6	
		16	291105	Physicochemistry	Exam	2	1		14		42	5	
		17	281101	Theoretical Mechanics	Exam	2	2	28			56	6	
		18	241104	Course Project: Granulometric Raw Material Preparation	CA		4	56			56	6	
		19	421100	Foreign Language - Optional	CA		3				42	2*	
			431100	Sports - 2 h per week									
	Third semester:					4+2	9	14	84	70		322	30+2*
	Fourth	Fourth	20	281105	Strength of Materials	Exam	2	2	28			56	5
			21	231107	Fluid Mechanics	Exam	2	2	20	4	4	56	5
			22	211111	Fundamentals of mining technologies	Exam	2	2	20		8	56	5
			23	241106	Gravitational and Impulse Methods for Mineral Preparation and Recycling	Exam	2	3		42		70	6
			24	241108	Practical training: Gravitational and Impulse Methods for Raw Material Preparation and Recycling	CA						60	4
25			341103	Electrical Engineering and Electronics	Exam	2	2		28		56	5	
26			431100	Sports - 2 h per week	Exam		4				56	2*	
2	111318	Mineral Resources (optinal)*	Exam*	2*	1*				56*	4**			
Fourth Semester					5+2	10	15	68	74	12	410	30+2*	
Overall for the second year:					9+4	19	29	152	144	12	732	60+4*	

Year	Semester	№	Course unit code	Full name of the course unit (course projects, practical trainings)	Form of control	Teaching hours (weekly)		Total workload for the semester by type of exercises			Overall teaching hours per semester	Credits	
						L	S	S	L	P			
Third	Fifth	27	241109	Magnetic, Electromagnetic, and Special Methods for Mineral Separation and Recycling	Exam	2	3		42		70	7	
		28	241110	Flotation Technologies	Exam	3	3		42		84	8	
		29	241111	Practical training: Flotation Technologies	CA						60	4	
		30	241112	Processing and Recycling of Domestic Waste	Exam	2	3	26		16	70	6	
		31	351101	Mechanical Engineering	Exam	2	2				56	5	
	Fifth Semester:					4+1	9	11	26	84	16	340	30
	Шестя	32	241113	Processing and Recycling of Technogenic Raw Materials	Exam	2	3	26		16	70	6	
		33	241114	Ancillary Methods in Mineral Processing and Recycling	Exam	2	3		42		70	6	
		34	241115	Briquetting, Agglomeration, and Pelletising	Exam	2	3		26	16	70	6	
		35	241116	Chemical Methods in Mineral Processing and Recycling	Exam	2	3		42		70	6	
		36	241107	Course Project: Gravitational and Impulse Methods for Mineral Preparation and	CA		4	56			56	6	
	Sixth Semester:					4+1	8	16	82	110	32	336	30
	Overall for the third year:					8+2	17	27	108	194	48	676	60
	Fourth	Seventh	37	241117	Technological Design of Mineral Processing Plants	Exam	4	3	42			98	10
			38	241119	Sampling and Automated Control	Exam	2	4	34		22	84	9
			39	271113	Economy and Management	Exam	3	1	14			56	6
3			411300	Optional module (Social sciences)*	Exam	2*	1*	14*			42*	4**	
Seventh Semester:					3	9	8	90		238	25		
Eight		40	241118	Course Project: Technological Design of Mineral Processing Plants	CA		7	70			70	7	
		41	241120	Engineering Practices in the Processing of Minerals and Technogenic Raw Materials	Exam		8	40		40	80	8	
		42	261102	Technical Safety	Exam	3	3	10			60	6	
		43	171136	Environmental Protection	Exam	3					30	4	
Eight Semester:					2+2	6	18	110	0	40	240	25	
State exam:											10		
Overall for the fourth year:					6+2	15	26	200	0	40	478	60	
OVERALL FOR THE COURSE OF STUDY:					30+13	70	118	684	534	128	2716	240+10*	

* The credits above 240 (14 credits for the first and second year) are accumulated from the course units in Foreign Languages and Physical Education and Sports.

Abbreviations: 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: 2716 teach. hrs.

Academic load:: 2536 teach. hrs.

lectures: 956 teach. hrs.

seminars: 1580 teach. hrs.

Extracurricular load (practical training): 180 teach. hrs.

Number of exams per course of study: 30

Items of continuous assessment: 13