

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

FORM OF STUDY: FULL-TIME

DURATION OF STUDY: 4 YEARS

Duration of each semester: 14 weeks; of the eighth semester - 10 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	361101	Linear Algebra and Analytical Geometry	E	2	3	42			70	8	
		2	121101	General Geology	E	2	3		42		70	8	
		3	141101	Fundamentals of Geophysics	E	2	3	42			70	8	
		4	361129	Introduction to Computer Technologies	CA	1	3		42		56	6	
		5	221100	Foreign Language	CA		3*	42*			(42)	3*	
		6	371100	Physical Education and Sports	CA		2*			28*	(28)	1*	
			271320	Philosophical Anthropology – optional									
	Overall for the first semester					3+3	7	12+5*	84+42*	84	28*	266+70*	30+4*
	Second	7	361102	Mathematical Analysis	E	2	2	28			56	6	
		8	181102	Physics, Part I	E	2	2		28		56	6	
		9	111103	Fundamentals of Geostatistics	CA	2	2		28		56	5	
		10	251150	Geodesy and Mine Surveying	E	2	2	14		14	56	5	
		11	131103	Mineralogy and Petrography	E	3	3		42		84	8	
		12	221100	Foreign Language	CA		3*	42*			(42)	3*	
		13	371100	Physical Education and Sports	CA		2*			28*	(28)	1*	
Overall for the second semester					4+3	11	11+5*	42+42*	98	14+28*	308+70*	30+4*	
	14	121126	Practical training in General Geology							24*	1*		
	15	131105	Practical training in Mineralogy and Petrography							36*	2*		
Overall for the first year					7+6	252	322+140*	126+84*	182	14+56*	574+200*	60+11*	
Second	Third	16	181103	Physics, Part II	E	2	3		42		70	7	
		17	121114	Stratigraphy, Historic, and Regional Geology	E	2	2	28			56	5	
		18	141111	Petrophysics and Physics of the Rock Massif	E	2	2		28		56	6	
		19	161123	Technique of Well Exploration and Operation	E	2	2	28			56	6	
		20	141102	Pre-Processing and Graphical Presentation of Geophysical Data	CA	2	3	42			70	6	
		21	221100	Foreign Language	CA		3*	42*			42*	3*	
		22	371100	Physical Education and Sports	CA		2*			28*	28*	1*	
	Overall for the third semester					4+3	10	12+5*	98+42*	70	28*	308+70*	30+4*
	Четвърти	23	121113	Structural Geology and Geological Mapping	E	2	3	42			70	6	
		24	271105	Economics and Management	E	2	2	28			56	6	
		25	341103	Electrical Engineering	E	2	2		28		56	5	
		26	361104	Numerical Methods	CA	2	2		28		56	5	
		27	151112	Hydrogeology and Engineering Geology	E	3	3	42			84	8	
		28	371100	Physical Education and Sports	CA		2*			28*	28*	1*	
			121357	Geological Heritage – optional									
		221300	Foreign Language – optional										
Overall for the fourth semester					4+2	11	12+2*	112	56	28*	322+28*	30+1*	
	29	121131	Practical training in Structural Geology and Geological Mapping							18*	1*		
	30	151130	Practical training in Hydrogeology and Engineering Geology							18*	1*		
	31	141123	Practical training in Pre-Processing and Graphical Presentation of Geophysical Data							18*	1*		
Overall for the second year					8+5	294	336+98*	210+42*	126	56*	630+152*	60+8*	

Year	Semester	No	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				
Third	Fifth	32	141103	Gravitational Methods in Geophysics	E	4	4		28	28	112	10		
		33	141118	Course project in Gravitational Methods in Geophysics	CA		1		14		14	1		
		34	141104	Electrical Methods in Geophysics	CA	3	3		28	14	84	8		
		35	141106	Seismic Methods in Geophysics	E	4	4		28	28	112	10		
		36	141121	Course project in Seismic Methods in Geophysics	CA		1		14		14	1		
			221300	Foreign Language – optional										
			371300	Physical Education and Sports – optional										
	Overall for the fifth semester					2+3	11	13		112	70	336	30	
	Sixth	37	111117	Geology and Exploration of Mineral Deposits	E	2	2	28			56	5		
		38	141105	Magnetic Methods in Geophysics	E	4	4		28	28	112	10		
		39	141120	Course project in Magnetic Methods in Geophysics	CA		1		14		14	1		
		40	211226	<i>Elective course unit from the following:</i> - Mine Technologies 281205 - Hydrochemistry	E	2	2	28			56	5		
		41	141104		Electric Methods in Geophysics	E	3	3		28	14	84	8	
		42	141119	Course project in Electric Methods in Geophysics	CA		1		14		14	1		
			131325	Fundamentals of Gemology – optional										
			221300	Foreign Language – optional										
			371300	Physical Education and Sports – optional										
		Overall for the sixth semester					4+2	11	13	56	84	42	336	30
			43	141125	Practical training in Electric Methods in Geophysics							24*	1*	
	44		141124	Practical training in Gravitational Methods in Geophysics							18*	1*		
	45		141126	Practical training in Magnetic Methods in Geophysics							18*	1*		
	46		141127	Practical training in Seismic Methods in Geophysics							18*	1*		
	Overall for the third year					6+5	308	364	56	196	112	672+78*	60+4*	
	Fourth	Seventh	47	111133	Geology and Exploration of Oil and Gas Deposits	E	2	2	28			56	5	
			48	141108	Remote Sensing Methods in Geophysics	E	2	2		28		56	5	
			49	181104	Atomic and Nuclear Physics	E	2	2		28		56	5	
			50	141213	<i>Elective course unit from the following:</i> Employing Geographic Information Systems in Applied Geophysics 251252 Global Navigation Satellite Systems 141214 Natural Disasters and Ecological Catastrophes	E	2	2	28			56	5	
			51	261102		Technical Safety	CA	2	2	14	14		56	5
52			171126	Ecology and Environmental Protection		E	2	2	14	14		56	5	
			221300	Foreign Language – optional										
			371300	Physical Education and Sports – optional										
Overall for the seventh semester					5+1	12	12	84	84		336	30		
Eighth		53	141109	Drilling Geophysics	E	6	6		60		120	11		
		54	141107	Radiometry and Nuclear Geophysics	E	6	6		60		120	11		
		55	141110	Complexing of Geophysical Exploration	E	3	4	40			70	7		
		56	141122	Course project in Complexing of Geophysical Exploration	CA		1	10			10	1		
			221300	Foreign Language – optional										
			371300	Physical Education and Sports – optional										
Overall for the eighth semester					3+1	15	17	50	120		320	30		
Overall for the fourth year					8+2	318	338	134	204		656	60		
State exam											10*			
OVERALL FOR THE FULL COURSE OF STUDY					29+18	1172	1598	652	708	238	2770+192*	240+33*		

* The credits above 240 are formed by the course units in Foreign Languages and Physical Education and Sports, by the practical training, and by the state exam.

Abbreviations: **E** - exam, **CA** - continuous assessments, **L** - lectures, **Lab** - laboratory seminars, **S** - seminars, **P** - practical seminars

Parameters of the educational process:

Overall teaching hours for the full course of study:	2962
Academic load:	2770
lectures:	1172
seminars:	1598
- seminars	652
- laboratory seminars	708
- practical seminars	238
Extracurricular load (practical training):	192
Number of exams per course of study:	29
Items of continuous assessment:	18