

**CURRICULUM**  
**EDUCATIONAL AND QUALIFICATION DEGREE: BACHELOR**  
**COURSE OF STUDY: HYDROGEOLOGY AND ENGINEERING GEOLOGY**  
**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	121101	General Geology	E	2	2		28		56	7	
		2	361101	Linear Algebra and Analytical Geometry	E	2	2	28			56	8	
		3	281101	General Chemistry	E	2	2		28		56	8	
		4	131139	Fundamentals of Mineralogy	E	2	2	28			56	7	
		5	371100	Physical Education and Sports	CA		2			28	28	1*	
		272246	Scientific (Academic) Ethics										
	<b>Overall for the first semester</b>					<b>4+1</b>	<b>8</b>	<b>10</b>	<b>56</b>	<b>56</b>	<b>28</b>	<b>252</b>	<b>30+1*</b>
	Second	6	181102	Physics, Part I	E	2	2		28		56	5	
		7	361102	Mathematical Analysis	E	2	2	28			56	6	
		8	251150	Geodesy and Mine Surveying	E	2	2	28			56	6	
		9	131144	Petrography	E	3	3	42			84	8	
		10	111103	Fundamentals of Geostatistics	CA	2	2	28			56	5	
		11	371100	Physical Education and Sports	CA		2			28	28	1*	
	<b>Overall for the second semester</b>					<b>4+2</b>	<b>11</b>	<b>13</b>	<b>126</b>	<b>28</b>	<b>28</b>	<b>336</b>	<b>30+1*</b>
		12	121126	Practical training in General Geology						18	18	1*	
	13	131141	Practical training in Fundamentals of Mineralogy						18	18	1*		
	14	131106	Practical training in Petrography						24	24	1*		
	15	251151	Practical training in Geodesy and Mine Surveying						18	18	1*		
<b>Overall for the first year</b>					<b>8+3</b>	<b>266</b>	<b>322</b>	<b>182</b>	<b>84</b>	<b>134</b>	<b>722</b>	<b>60+6*</b>	
Second	Third	16	181103	Physics, Part II	E	2	2		28		56	6	
		17	351129	Principles of Mechanics/Theoretical Mechanics	E	2	2	28			56	6	
		18	171126	Ecology and Environmental Protection	E	2	2	28			56	6	
		19	121114	Stratigraphy, Historical, and Regional Geology	E	2	2	28			56	7	
		20	361129	Introduction to Computer Technologies	CA	1	2	28			42	5	
		21	221100	Foreign Language	CA		3	42			42	1*	
		22	371100	Physical Education and Sports	CA		2			28	28	1*	
	<b>Overall for the third semester</b>					<b>4+3</b>	<b>9</b>	<b>15</b>	<b>154</b>	<b>28</b>	<b>28</b>	<b>336</b>	<b>30+2*</b>
	Fourth	23	121113	Structural Geology and Geological Mapping	E	2	3	42			70	9	
		24	281105	Hydrochemistry	E	2	2	42			56	7	
		25	271105	Economics and Management	E	2	2	28			56	7	
		26	211125	Mining Technologies	E	2	2	28			56	7	
		27	221100	Foreign Language	CA		3	42			42	1*	
		28	371100	Physical Education and Sports	CA		2			28	28	1*	
<b>Overall for the fourth semester</b>					<b>4+2</b>	<b>8</b>	<b>14</b>	<b>182</b>	<b>28</b>	<b>308</b>	<b>30+2*</b>		
	29	121131	Practical training in Structural Geology and Geological Mapping						18	18	1*		
	30	121134	Practical training in Regional Geology						18	18	1*		
<b>Overall for the second year</b>					<b>8+5</b>	<b>238</b>	<b>406</b>	<b>336</b>	<b>28</b>	<b>92</b>	<b>736</b>	<b>60+6*</b>	

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			
Third	Fifth	31	161123	Technique of Well Exploration and Operation	E	2	2	28			56	6	
		32	151101	General Hydrogeology	E	4	4	40	12	4	112	9	
		33	151102	Pedology	E	4	4	16	40		112	9	
		34	121105	Geomorphology and Quaternary Geology	CA	2	2	28			56	6	
		35	221200	Foreign Language – <i>elective</i>			3	42			42	1*	
	<b>Overall for the fifth semester</b>					<b>3+1</b>	<b>12</b>	<b>15</b>	<b>154</b>	<b>52</b>	<b>4</b>	<b>378</b>	<b>30+1*</b>
	Sixth	36	141115	Applied Geophysics	E	2	2	28			56	5	
		37	231130	Engineering Facilities	E	2	2	28			56	5	
		38	151103	Ground Water Dynamics	E	4	4	56			112	8	
		39	151104	Engineering Geodynamics	E	4	4	56			112	8	
		40	111117	Geology and Exploration of Mineral Deposits	E	2	2	28			56	4	
			221200	Foreign Language – <i>elective</i>									
		371300	Physical Education and Sports - <i>elective</i>										
	<b>Overall for the sixth semester</b>					<b>5</b>	<b>14</b>	<b>14</b>	<b>196</b>			<b>392</b>	<b>30</b>
		41	151130	Practical training in Hydrogeology and Engineering Geology						30	30	1*	
	42	141128	Practical training in Applied Geophysics						18	18	1*		
<b>Overall for the third year</b>					<b>8+1</b>	<b>364</b>	<b>406</b>	<b>350</b>	<b>196</b>	<b>48</b>	<b>818</b>	<b>60+3*</b>	
Fourth	Seventh	43	151105	Ground Water Exploration	E	3	4	56			98	7	
		44	151106	Engineering and Geological Prospecting	E	3	4	56			98	7	
		45	151107	Geotechnics	E	2	3	42			70	6	
		46	261102	Technical Safety	CA	2	2	14			56	5	
		47	231128	Hydrogeology and Hydraulics	E	2	2	28			56	5	
			221200	Foreign Language – <i>elective</i>									
			371300	Physical Education and Sports - <i>elective</i>									
	<b>Overall for the seventh semester</b>					<b>4+1</b>	<b>12</b>	<b>15</b>	<b>196</b>			<b>378</b>	<b>30</b>
	Eighth	48	151109	Regional Engineering Geology	E	3	3	30			60	6	
		49	151110	Ground Water in Bulgaria	E	3	3	30			60	6	
		50	151111	Ground Water Preservation	E	3	3	30			60	6	
		51	151108	Engineering Geocology	E	3	3	30			60	6	
		52	151128	Course project in Hydrogeology	CA		2	10			20	3	
		53	151129	Course project in Engineering Geology	CA		2	10			20	3	
			221200	Foreign Language – <i>elective</i>									
	371300	Physical Education and Sports - <i>elective</i>											
<b>Overall for the eighth semester</b>					<b>4+2</b>	<b>12</b>	<b>16</b>	<b>140</b>			<b>280</b>	<b>30</b>	
	54	231129	Practical training in Hydrology and Hydraulics						12	12	1*		
	55	151131	Practical training in Regional Engineering Geology and Hydrogeology						18	18	1*		
<b>Overall for the fourth year</b>					<b>8+3</b>	<b>288</b>	<b>370</b>	<b>336</b>		<b>30</b>	<b>688</b>	<b>60+2*</b>	
<b>State exam</b>												<b>10*</b>	
<b>OVERALL FOR THE FULL COURSE OF STUDY</b>					<b>32+12</b>	<b>1156</b>	<b>1504</b>	<b>1204</b>	<b>308</b>	<b>304</b>	<b>2964</b>	<b>240+27*</b>	

\*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** - examination; **CA** -continuous assessment; **L** - lectures; **Lab** - laboratory seminars; **S** -seminars; **P** - practical seminars

#### **Parameters of the educational process:**

Overall teaching hours for the full course of study:	2964
Academic load:	2772
lectures:	1156
seminars:	1504
- seminars	1204
- laboratory seminars	308
- practical seminars	304
Extracurricular load (practical training):	192
Number of exams per course of study:	32
Items of continuous assessment:	12