

CURRICULUM

EDUCATIONAL AND QUALIFICATION DEGREE: MASTER
 COURSE OF STUDY: DRILLING, OIL AND GAS PRODUCTION, AND TRANSPORT
 VOCATIONAL FIELD: 5.8. EXPLORATION, MINING, AND PROCESSING OF MINERALS

FORM OF STUDY: FULL-TIME

DURATION OF STUDY: 4 year

Duration of the semester: 14 weeks

Year	Semester	N.	Course unit code	Full name of the course unit (course projects, practical trainings)	Form of control	Teaching hours (weekly)		Overall teaching hours per semester	Credits	
						L	S			
FIRST	First	1	121101	General Geology	E	2	2	56	6	
		2	361101	Mathematics, p. I	E	2	3	70	6	
		3	291102	Chemistry	E	2	2	56	6	
		4	131103	Mineralogy and Petrography	E	2	4	84	6	
		5	371103	Office and CAD Systems	E	1	3	56	6	
		6	431100	Physical Education and Sports	CA	-	2	28	1*	
		7	421100	Foreign languages	CA	-	3	42	2*	
				<i>Optional course</i>						
	8	411300	Social Science	CA*	2*	1*	42*	2*		
	Overall for the 1st semester:					5+2	9	19	392	30+3*
	Second	9	361102	Mathematics, p. II	E	3	3	84	6	
		10	181102	Physics, p. I	E	2	3	70	6	
		11	351108	Engineering graphics	E	1	2	42	6	
		12	111133	Exploration of Mineral Deposits and Petroleum Geology	E	2	2	56	6	
		13	251141	Geodesy and Mine Surveying	E	2	2	56	6	
		14	431100	Physical Education and Sports	CA	-	2	28	1*	
		15	421100	Foreign languages	CA	-	3	42	2*	
				<i>Practical training:</i>						
		16	371243	CAD Systems - 2 days	-	-	-	12**	-	
17		121226	General Geology - 2 days	-	-	-	12**	-		
18		131105	Mineralogy and Petrography - 4 days	-	-	-	24**	-		
19	161115	Drilling and oil & gas production and transport - 4 days	-	-	-	24**	-			
Overall for the 2nd semester:					5+2	10	17	378+60**	30+3*	
Overall for the first year:					10+4	19	36	770+60**	60+6*	
SECOND	Third	20	181103	Physics, p. II	E	2	3	70	6	
		21	351114	Thermodynamics and ICE	E	2	2	56	6	
		22	281101	Mechanics	E	2	2	56	6	
		23	111117	Geology and Exploration of Mineral Deposits	E	2	2	56	6	
		24	161101	Introduction to drilling and oil & gas production and transport engineering	E	2	2	56	6	
		25	431100	Physical Education and Sports	CA	-	2	28	1 ^A	
		26	421100	Foreign languages	CA	-	3	42	2 ^A	
	Overall for the 3rd semester:					5+2	10	16	364	30+3*
	Fourth	27	281105	Strength of Materials	E	2	2	56	6	
		28	151112	Hydrogeology and Engineering Geology	E	2	2	56	6	
		29	341103	Electrical Engineering and Electronics	E	2	2	56	6	
		30	211114	Mining	E	2	2	56	6	
		31	351103	Theory of Mechanism and Machine Elements	E	2	2	56	6	
32		431100	Physical Education and Sports	CA	-	2	28	1 ^A		
		<i>Practical training:</i>								
33	161116	Core Drilling, Water well drilling and Geotechnical Drilling - 8 days	-	-	-	48**	-			
Overall for the 4th semester:					5+1	10	12	308+48**	30+1*	
Overall for the second year:					10+3	20	28	672+48**	60+4*	

Year	Semester	N	Course unit code	Full name of the course unit (course projects, practical trainings)	Form of control	Teaching hours (weekly)		Overall teaching hours per semester	Credits	
						L	S			
THIRD	Fifth	34	161102	General and Drilling Hydraulics	E	3	3	84	10	
		35	161103	Drilling Fluids and Cement Slurries	TO	-	4	56	6	
		36	111110	Rock and Reservoir Fluid Properties & Fluid Flow in Porous Media	E	2	2	56	6	
		37	161104	Machines and Equipment for Drilling and CP	E	3	3/1 ^{cp}	98	8	
	Overall for the 5th semester:					3+1	8	13	294	30
	Sixth	38	161105	Mechanics, Machines and Equipment for Production and Transport and CP	E	2	2/1 ^{cp}	70	5	
		39	161106	Drilling, p. I (Core Drilling) and CP	E	4	3/1 ^{cp}	112	11	
		40	141117	Applied Geophysics and Well Logging	E	2	2	56	4	
		41	271113	Economics and Management	E	2	2	56	4	
		42	161107	Water well and Geotechnical Drilling	E	3	3	84	6	
		<i>Practical training:</i>								
		43	161117	Oil and Gas Drilling - 4 days	-	-	-	24 ^{**}	-	
		44	161118	Production and Transport - 8 days	-	-	-	48 ^{**}	-	
	Overall for the 6th semester:					5	13	14	378+72^{**}	30
Overall for the third year:					8+1	21	27	672+72^{**}	60	
FOURTH	Seventh	45	161108	Drilling, p. II (Oil and Gas Drilling) and CP	E	5	5/1 ^{cp}	154	12	
		46	161109	Reservoir and Production Engineering, p. I (Well Testing, Well Stimulation) and CP	E	4	4/1 ^{cp}	126	10	
		47	171126	Ecology	E	2	2	56	4	
		48	261102	Safety	E	2	2	56	4	
	Overall for the 7th semester:					4	13	15	392	30
	Eighth	49	161111	Reservoir and Production Engineering, p. II (Reservoir Simulation and Production) and CP	E	4	3/1 ^{cp}	112	12	
		50	161112	Oil and Gas Transport and Utilization and CP	E	4	4/1 ^{cp}	126	14	
		51	161110	Well Control	TO	-	2	28	4	
	Overall for the 8th semester:					2+1	8	11	266	30
	State exam					-	-	-	-	10
Overall for the fourth year:					6+1	21	26	658	70	
OVERALL FOR THE FULL COURSE OF STUDY:					34+9	81	117	2772+180^{**}	250+10[*]	

PARAMETERS OF THE CURRICULUM

Overall teaching hours: 2952 /2772L & Ex +180^{**}/, as follows:

Lectures - 1134 h.

Seminars - 1638 h.

- Seminars - 1232 h.

- Lab practice - 294 h.

- Sport - 112 h.

Practical training - 180^{**} h. Some practical training may be organised during the semester during weekends.

State exam 250 (240+10 credits).

Abbreviations: E – exam; CA - continuous assessment; L - lectures; S - seminars; Lab - laboratory seminars; P - practical seminars; CP – course project