



APPROVED

Rector of Satbayev University

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MODULAR EDUCATIONAL PROGRAM for admission for the 2019-2020 academic year

Educational program 6B07202 - "Geology and exploration of mineral deposits"

Full-time study Study duration: 4 years Academic degree: bachelor of engineering and technology

Code of discipline	Name of disciplines	semester	Cycle	Credits	lec/lab/pr/IWS	Form of control	competencies
Multilingual preparation module							
Required component							
LNG 1051	Beginner (A1)	1	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG 1052	Elementary English (A1)						GCC 1,3,5,6,7,8
LNG 1053	General English 1 (A2)						GCC 1,3,5,6,7,8
LNG 1054	General English 2 (A2)						GCC 1,3,5,6,7,8
LNG 1055	Academic English (B1)						GCC 1,3,5,6,7,8
LNG 1056	Business English (B2)						GCC 1,3,5,6,7,8
LNG1072	Basic Kazakh (Russian) language (A2)	1	G	4	0/0/2/2	E	GCC 1,3,5,6,7,8
LNG1073	Academic Kazakh (Russian) language (B1)						GCC 1,3,5,6,7,8
LNG1074	Business Kazakh language/Advanced Russian language (B2)						GCC 1,3,5,6,7,8
LNG 1052	Elementary English (A1)	2	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG 1053	General English 1 (A2)						GCC 1,3,5,6,7,8
LNG 1054	General English 2 (A2)						GCC 1,3,5,6,7,8
LNG 1055	Academic English (B1)						GCC 1,3,5,6,7,8
LNG 1056	Business English (B2)						GCC 1,3,5,6,7,8
LNG 1057	Professional English (B2+)	GCC 1,3,5,6,7,8					
LNG1072	Basic Kazakh (Russian) language (A2)	2	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG1073	Academic Kazakh (Russian) language (B1)						GCC 1,3,5,6,7,8
LNG1074	Business Kazakh language/Advanced Russian language (B2)						GCC 1,3,5,6,7,8
LNG 1053	General English 1 (A2)	3	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG 1054	General English 2 (A2)						GCC 1,3,5,6,7,8
LNG 1055	Academic English (B1)						GCC 1,3,5,6,7,8
LNG 1056	Business English (B2)						GCC 1,3,5,6,7,8
LNG 1057	Professional English (B2+)	GCC 1,3,5,6,7,8					
LNG 1054	General English 2 (A2)	4	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG 1055	Academic English (B1)						GCC 1,3,5,6,7,8
LNG 1056	Business English (B2)						GCC 1,3,5,6,7,8
LNG 1057	Professional English (B2+)	GCC 1,3,5,6,7,8					
Optional component							
LNG1074	Business Kazakh language/Advanced Russian language (B2)	2	G	4	0/0/2/2	E	GCC 1,3,5,6,7,8
LNG1075	Kazakh (Russian) language. Rhetoric (C1)						GCC 1,3,5,6,7,8
LNG1076	Kazakh (Russian) language. Culture of business communication (C1)						GCC 1,3,5,6,7,8
LNG109	IELTS Preparation	4	G	6	0/0/3/3	E	GCC 1,3,5,6,7,8
LNG110	Intercultural Communication						GCC 1,3,5,6,7,8
LNG117	Technical Writing						GCC 1,3,5,6,7,8
LNG118	Public speaking						GCC 1,3,5,6,7,8
LNG119	Productivity skills						GCC 1,3,5,6,7,8
LNG120	GRE preparation						GCC 1,3,5,6,7,8
LNG121	Academic Writing	GCC 1,3,5,6,7,8					
Social Studies Module							
Required component							
HUM113	Contemporary History of Kazakhstan	2	G	6	1/0/2/3	SE	GCC 4,8

HUM124	Phylosophy	3	G	6	1/0/2/3	E	GCC 4,8
HUM126	Social & Political Knowledge	5	G	8	4/0/0/4	E	GCC 4,8
Physical and mathematical training, informatics and chemistry module							
Required component							
PHY00130	Physics Begin	1	B	6	1/1/1/3	E	GPC 3
PHY00131	Physics I						GPC 3
MAT00110	Algebra & introduction to calculus	1	B	6	1/0/2/3	E	GPC 1,2
MAT00131	Calculus I						GPC 1,2
CHE192	Chemistry	1	B	6	2/1/0/3	E	GPC 3
PHY00131	Physics I	2	B	6	1/1/1/3	E	GPC 3
PHY00132	Physics II						GPC 3
MAT00131	Calculus I	2	B	6	1/0/2/3	E	GPC 1,2
MAT00132	Calculus II						GPC 1,2
CSE174	Information & Communication Technologies	4	G	6	2/1/0/3	E	GPC 1,2
MAT00132	Calculus II	3	B	6	1/0/2/3	E	GPC 1,2
MAT00133	Calculus III						GPC 1,2
MAT00133	Calculus III	4	B	6	1/0/2/3	E	GPC 1,2
MAT126	Ordinary Differentiation Equations MatLab						GPC 1,2
Optional component							
PHY00132	Physics II	3	B	6	1/1/1/3	E	GPC 3
GPH107	Fundamental Physics of Earth		B	6	2/1/0/3	E	PC 1,2,3
Basic geological training module							
Required component							
GEO115	General geology (Introduction to specialty)	1	B	6	2/1/0/3	E	GPC 3, PC 2,3,4
GEO126	Structural geology	2	B	6	2/1/0/3	E	PC 1,2,3,4
GEO113	Crystallography and mineralogy	3	B	6	1/2/0/3	E	GPC 3, PC 3,4
GEO122	Petrography	4	B	6	1/2/0/3	E	GPC 3, PC 2,5
GEO127	Geology and Mineral Resources of Kazakhstan	4	B	6	2/1/0/3	E	GPC 2,3,4, PC 2,5,7
PET136	Drilling of the wells	4	B	6	2/1/0/3	E	GPC 4, PC 2,3,4
GEO170	Hydrogeology	5	B	6	2/1/0/3	E	GPC 3, PC 2,5
GEO179	Geoinformation technologies in geology	5	B	6	2/1/0/3	E	GPC 1,2,4, PC 6,8
GEO171	Sedimentology	5	B	6	2/1/0/3	E	GPC 3, PC 2,3,4
GPH103	Geophysical methods of prospecting and exploration	6	B	6	2/1/0/3	E	GPC 3,4, PC 3,4,7
Optional component							
GEO 181	Geological mapping	5	B	6	2/0/1/3	E	GPC 1,2,4, PC 1,2,3
GEO 167	Organic geochemistry of oil and gas basins				2/1/0/3	E	GPC 2,4, PC 5
GEO 159	Ecological hydrogeology				2/1/0/3	E	GPC 3,4, PC 1,2,5,7
GEO 182	Crystaloptics	5	B	6	1/2/0/3	E	GPC 3, PC 2,3,4
GEO 145	Lithology and sedimentology of oil and gas				2/0/1/3	E	GPC 3,4, PC 2,3,4,5
GEO 128	Watersupply and irrigation				2/1/0/3	E	GPC 2, PC 1,3
Profile Geological training module							
Required component							
GEO121	Paleontology and historical geology	3	S	6	2/1/0/3	E	GPC 3,4, PC 2,3,4
GEO105	Geology of mineral deposits	5	S	6	2/1/0/3	E	GPC 3,4, PC 2,5
GEO119	Fundamentals of subsoil	6	S	6	2/1/0/3	E	GPC 2,4, PC 1,2,7
GEO124	Prospecting and exploration of mineral deposits	6	S	6	2/1/0/3	E	GPC 2,3,4, PC 1,2,3
GEO149	Oil and Gas Geology	6	S	6	2/0/1/3	E	GPC 3,4, PC 2,3,4,5,7
GEO178	Engineering geology	6	S	6	2/1/0/3	E	GPC 2,4, PC 1,3,4,7
Optional component							
GEO 106	Geological and industrial types of mineral deposits	6	S	6	2/0/1/3	E	GPC 2,4, PC2,4,5
GEO 173	Geodynamics of lithospheric plates				2/1/0/3	E	GPC 3,4, PC 2
GEO 135	Hydrogeodynamics				2/1/0/3	E	GPC 1,3,4, PC 2,5
GEO 112	Computer technologies in geology	7	S	6	1/2/0/3	E	GPC 1,2, PC 1,3
GEO 151	Oil and gas provinces of the world				2/0/1/3	E	GPC 4, PC 2,5
GEO 136	Hydrogeological study				2/1/0/3	E	GPC 3,4, PC 1,2,3
GEO 183	Applied geochemical studies	7	S	6	2/0/1/3	E	GPC 1,3, PC 1,2,3,4
GEO 168	Theoretical basis for searching and exploration of oil and gas fields				2/0/1/3	E	GPC 3,4, PC 1,2,5,7
GEO 140	Engineering geodynamics				2/1/0/3	E	GPC 1,2, PC 1,7,8
GEO 114	Laboratory Methods of studying minerals	7	S	6	1/2/0/3	E	GPC 3, PC 1,2,3,4
GEO 130	Geodynamics of oil and gas basins				2/0/1/3	E	GPC 2, PC 1,5
GEO 147	Meliorative hydrogeology				2/1/0/3	E	GPC 3,4, PC 1,3

GEO 143	Fundamentals of geotectonics	7	S	6	2/0/1/3	E	GPC 4, PC 5
GEO 131	Geological bases of oil and gas fields' development and exploitation				2/0/1/3	E	GPC 3,4, PC 1,2,6
GEO 157	Search and exploration of underground waters				2/1/0/3	E	GPC 3,4, PC 1,2,5,6,7
GEO 184	Geological assessment of mineral resources and reserves	8	S	6	2/0/1/3	E	GPC 1,3,4, PC 1,2,6,7
GEO 150	Oil and gas geology and estimation of reserves				2/0/1/3	E	GPC 1,3,4, PC 1,2,6,7,8
GEO 141	Engineering and geological study				2/1/0/3	E	GPC 1,3,4, PC 2,3,4,7
GEO 125	Mine geology	8	S	6	2/0/1/3	E	GPC 3,4, PC 1,2,3,6,7,8
GEO 152	Oil and gas areas in Kazakhstan				2/0/1/3	E	GPC 3,4, PC 1,2,4,5
GEO 138	Hydrogeochemistry				2/1/0/3	E	GPC 3,4, PC 1,2,4,5
GEO 180	Geomorphology and anthropogenic geology	8	S	6	2/0/1/3	E	GPC 3,4, PC 2,3,5
GEO 169	Computer modeling of oil and gas fields				2/0/1/3	E	GPC 1,2,4, PC 1,3,8
GEO 148	Groundwater monitoring and geohazard				2/1/0/3	E	GPC 1,2,4, PC 1,2
Practice-oriented module							
Required component							
AAP107	Educational field geological internship	2	B	4	0/0/4/0		GPC 1-4, PC 1-8
AAP109	Industrial internship I	4	S	2	0/0/2/0		GPC 1-4, PC 1-8
AAP103	Industrial internship II	6	S	4	0/0/4/0		GPC 1-4, PC 1-8
Final certification module							
Required component							
ECA001	Preparation & writing of thesis (project)	7-8	FA	8			GPC 1-4, PC 1-8
ECA103	Thesis (project) defence	8	FA	6			GPC 1-4, PC 1-8
Additional training module							
Required component							
AAP122,132	Physical education	1-4	AT	8			
Optional component							
AAP500	Military training	3-6	AT	0			

Total number of credits			
Cycle of disciplines	Credits		
	Required component	Optional component	total
Cycle of general disciplines (G)	58	0	58
Cycle of basic disciplines (B)	108	12	120
Cycle of special disciplines (S)	36	48	84
Total of theoretical study :	202	60	262
Extra education	10	6	16
Final attestation (FA)	14	0	14
TOTAL:	226	66	292

Decision of the Academic Council Satpayev University. Minutes # 19, dated "21" June 2019.

Decision of the Educational and Methodological Board of Satpayev University. Minutes # 3, dated "19" December 2018.

Decision of the Academic Council of the Institute of Geology and petroleum engineering institute named after K. Turysov. Minutes # 3, dated "09" November 2018.

Vice-rector for academic affairs

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