



WORKING CURRICULUM
of the educational program for 2021-2022 academic year admission
Educational programs 6B07202, 6B05201 - "Geology and exploration of mineral deposits"
Group of Educational programs B071 - "Mining and extraction of minerals"
Group of Educational programs B052 - "Earth Science"

Form of study: distance

Study duration : 2 years

Academic degree: bachelor of engineering and technology

Academic degree: bachelor of natural sciences

Year of study	Code	Name of discipline	Cycle	Total Credits	Total hours	audience volume, lec/lab/pr	SIW (including SIWT) in hours	Code	pre-requisites	Code	Name of discipline	Cycle	Credits	Total hours	audience volume, lec/lab/pr	SIW (including SIWT) in hours	Code	pre-requisites				
1 semester (autumn 2021)										2 semester (spring 2022)												
1	IDD163	Mathematics I	B	5	150	1/0/2	105	no		IDD164	Mathematics II	B	5	150	1/0/2	105	IDD163					
	IDD161	Physics I	B	5	150	1/1/1	105	no		IDO165	Chemistry	B	5	150	1/1/1	105	no					
	IDO630	Engineering and Computer Graphics	B	5	150	1/0/2	105	no		IDD140	Structural geology	B	5	150	2/1/0	105	IDD139					
	IDD139	General and historical geology	B	5	150	2/1/0	105	no		IDD142	Petrography	B	5	150	1/2/0	105	IDD139					
	IDO336	Crystallography and mineralogy	B	5	150	1/2/0	105	no		IDD144	Geology and Mineral Resources of Kazakhstan	B	5	150	2/1/0	105	IDD139					
	IDD159	Mining	B	5	150	2/1/0	105	no		IDD155	Geoinformation technologies in geology	B	5	150	2/1/0	105	no					
	IDD158	Sedimentology	B	5	150	2/1/0	105	no		IDO627	Geodesy	B	5	150	2/1/0	105	no					
Total:				35						Total:				35								
3 semester (autumn 2022)										4 semester (spring 2023)												
2	IDO332	Geophysical methods of prospecting and exploration	B	5	150	2/1/0	105	no		IDD146	Fundamentals of subsoil	S	5	150	2/0/1	105	IDD139					
	IDD150	Drilling of the wells	B	5	150	2/1/0	105	no		IDO348	Oil and Gas Geology	S	5	150	2/0/1	105	IDD139					
	IDD143	Prospecting and exploration of mineral deposits	B	5	150	2/1/0	105	IDD139		IDO339	Hydrogeology and Engineering Geology	S	5	150	2/1/0	105	IDD139					
	IDO380	Geology of mineral deposits	S	5	150	2/1/0	105	IDD139														
	2218	Electives	B	5						IDD171	Preparation and writing of graduation work (project)	FA	6									
	2219	Electives	B	5						IDD172	The defence of graduation work (project)	FA	6									
	2302	Electives	S	5						Total:									27			

Other academic education				
Year of study	Code	Name of discipline	Credits	Semester
Obligatory education with P/NP assessment (Professional practice)				
1	AAP143	Industrial internship I (S)	2	2

Cycle of disciplines	Credits		
	compu-sary	elective	total
Cycle of general disciplines (G)			
Cycle of basic disciplines (B)	85	10	95
Cycle of special disciplines (S)	22	5	27
Total of theoretical study:			122
Final attestation (FA)	12		12
OVERALL:			134

Decision of the Academic Council of KazNRTU after K.Satbayev. Minutes # 3, dated 25.12 2021.

Decision of the Academic Council of the IGP&ME. Minutes # 5, dated 24.12 2020

Vice-rector for academic affairs



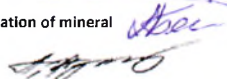
B. Zhautikov

Director of Geology, petroleum and mining engineering institute



A. Syzdykov

Head of the department "Geological mapping, prospecting and exploration of mineral



A. Bekbotayeva

Representative of Specialty council



A. Zhunusov

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY after K. SATBAYEV



MAJOR ELECTIVE DISCIPLINES educational program for the 2020-2021 academic year admission
Educational programs 6B07202, 6B05201 - "Geology and exploration of mineral deposits"
Group of Educational programs B071 - "Mining"
Group of Educational programs B052 - "Earth Science"

Form of study: distance

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Year of study	Code of elective	Code of discipline	Name of discipline	Cycle	Credits	Total hours	lec/lab/pr	SIW (including SIWT) in hours	Prerequisites
3 semester (autumn 2022)									
2	2218	IDO342	Geological mapping and remote methods of research	B	5	150	2/0/1	105	IDD140
		IDO343	Organic geochemistry of oil and gas basins				2/0/1		IDD139
	2219	IDD160	Basics of microscopy of rocks	B	5	150	2/0/1	105	IDD142
		IDO347	Petrophysics				2/1/0		IDD142
		IDO986	Geophysical exploration (well logging) of uranium deposits				2/1/0		IDD148
		Total:					10		
	2302	IDO349	Geological and industrial types of mineral deposits	S	5	150	2/0/1	105	IDD139
		IDO350	Geodynamics of lithospheric plates				2/0/1		IDD139
		IDO353	Computer technologies in geology	S	5	150	1/2/0	105	IDD155
		IDO354	Oil and gas provinces of the world				2/0/1		IDD144
		IDO289	Geochemical methods of prospecting mineral deposits	S	5	150	2/0/1	105	IDD139
		IDO360	Computer modelling of oil and gas fields				2/1/0		IDD155
		IDO371	Laboratory Methods of studying minerals	S	5	150	1/2/0	105	IDD142
		IDO374	Geodynamics of oil and gas basins				2/0/1		IDD144
		IDO364	Geotectonics bases	S	5	150	2/0/1	105	IDD144
		IDO361	Geological bases of oil and gas fields development and exploitation				2/0/1		IDD139
		IDO292	Geomorphology and quaternary Geology	S	5	150	2/0/1	105	IDD139
		IDO367	Theoretical basis for searching and exploration of oil and gas fields				2/0/1		IDD143
		IDO372	Mine geology	S	5	150	2/0/1	105	IDD143
		IDO377	Oil and gas geology and estimation of reserve				2/0/1		IDD143
IDO290	Geological and economic evaluation of mineral deposits	S	5	150	2/0/1	105	IDD143		
IDO368	Oil and gas areas in Kazakhstan				2/0/1		IDD143		
Total:		5							

Credits numbers of elective disciplines over the entire period of study	
Cycle of disciplines	Credits
Cycle of basic disciplines (B)	10
Cycle of special disciplines (S)	5
Overall:	15

Decision of the Academic Council of the IGP&ME. Minutes # 5 dated 24.12.2020

Head of the department "Geological mapping,

A. Bekbotayeva

Representative of Speciality council

A. Zhunusov