



APPROVED
Chairman of the Board -
Rector of the "KazNRTU named after K.I. Satpayev"
M.M. Begentayev
2021

WORKING CURRICULUM

MAJOR CURRICULUM for 2021-2022 academic year admission

Educational program 6B07205 - "Mining engineering"

Group of Educational programs B071 - "Mining and extraction of minerals"

Full-time: study

Study duration : 4 years

Academic degree: bachelor of engineering and technology

Year of study	Code	Name of discipline	Cycle	Total Credits	total hours	lec/lab/pr	SIS (including STS), in hours	pre-requisites	Code	Name of discipline	Cycle	Total Credits	total hours	lec/lab/pr	SIS (including STS), in hours	pre-requisites	
1 semester (fall 2021)																	
1	LNG 108	Beginner (A1)	G	5	150	0/0/3	105	Diagnostic test	LNG 108	Elementary English (A1)	G	5	150	0/0/3	105	LNG 105	
	LNG104	Kazakh/Russian (A2)	G	5	150	0/0/3	105	Diagnostic test	LNG104	Academic Kazakh/Russian (B1)	G	5	150	0/0/3	105		
	MAP519	Geodesy	B	5	150	1/0/2	105	no	HUM100	Contemporary History of Kazakhstan (State exam)	G	5	150	1/0/2	105	no	
	PHY468	Physics	B	5	150	1/1/1	105		MAT102	Calculus II	B	5	150	1/0/2	105	MAT101	
	MAT101	Calculus I	B	5	150	1/0/2	105	Diagnostic test	MIN101	Bases of mining (Introduction to specialty)	P	5	150	1/0/2	105	no	
	GEN177	Engineering and Computer Graphics	B	5	150	1/1/1	105	no	HUM128	Political science	G	2	60	1/0/0	45	no	
	HUM129	Cultural studies	G	2	60	1/0/0	45		CHE495	Chemistry	B	5	150	1/1/1	105		
	KFK101	Physical education I	G	2	60	0/0/2	30		KFK102	Physical education II	G	2	60	0/0/2	30		
				in total:	34	21							in total:	34	21		
2 semester (spring 2022)																	
2	HUM132	Philosophy	G	5	150	1/0/2	105		CSE677	Information & Communication Technologies	G	5	150	2/1/0	105	no	
	HUM122	Psychology	G	2	60	1/0/0	45		HUM127	Sociology	G	2	60	1/0/0	45		
	MNG487	Fundamentals of entrepreneurship, leadership, and anti-corruption culture	G	3	90	1/0/1	60		CHE452	Ecology, life safety and sustainable development	G	2	60	1/0/0	45		
	CHE451	Life safety	G	2	60	1/0/0	45		MIN443	Numerical 3D modeling of geomechanical processes	B	5	150	1/2/0	105		
	MIN109	Integrated information systems in mining	B	5	150	1/2/0	105	MIN101	MIN447	Physics of rock mass	B	5	150	1/2/0	105	MIN101	
	GEO475	Fundamentals of geology	B	5	150	2/1/0	105		MIN166	Classification of mining enterprises	B	5	150	1/1/1	105	MIN101	
	MIN442	Shattering process	B	5	150	1/1/1	105	MIN101	MIN444	Datamine Workbook	B	5	150	1/0/2	105	MIN439	
	KFK103	Physical education I, II (G)	G	2	60	0/0/2	30		2214	Elective	B	5	150	1/0/2	105		
				in total:	29	18			KFK104	Physical education IV	G	2	60	0/0/2	30		
				in total:	36	22							in total:	36	22		
3 semester (fall 2022)																	
3	ERG554	Operation of electrical installations with a voltage of up to and over 1000V	B	2	60	1/0/0	45	PHY001	MIN445	Финансово-экономическая модель горного предприятия	B	5	150	2/0/1	105		
	MIN453	Open-cast mining technology	B	5	150	1/0/2	105	MIN101	MIN458	Technology of underground mining operations	B	5	150	1/0/2	105	MIN 126	
	MET179	Processing and enrichment of minerals	B	5	150	2/1/0	105	CHE192	3221	Elective	B	5	150	2/0/1	105		
	3217	Elective	B	5	150	2/0/1	105		3304	Elective	P	5	150	2/0/1	105		
	3218	Elective	B	5	150	2/0/1	105		3305	Elective	P	5	150	2/0/1	105		
	3303	Elective	P	5	150	2/0/1	105		3222	Elective	B	5	150	2/0/1	105		
					in total:	27	16							in total:	30	18	
	4 semester (spring 2023)																
4	MIN478	Aerology of concessions	P	5	150	2/1/0	105	MIN101	4310	Elective	P	5	150	2/0/1	105		
	4307	Elective	P	5	150	2/0/1	105		4311	Elective	P	5	150	2/0/1	105		
	4308	Elective	P	5	150	2/0/1	105		ECA003	*Preparation & writing of thesis (project)	FA	6					
	4309	Elective	P	5	150	2/0/1	105		ECA103	Thesis (project) defence*	FA	6					
				in total:	20	12							in total:	22	6		

Other academic education (OAE)					
Year of study	Code	Name of discipline	Cycle	credits	Semester
Obligatory education with P/NP assessment					
1	AAP101	Educational Internship (B)	B	2	2
1	AAP113	Industrial internship I (S)	B	3	4
2	AAP176	Industrial internship II (S)	P	5	6
Other education					
2	AAP107	Physical education III, IV	0	0	5-7
2-3	AAP500	Military training	0	0	3-6

Total number of credits			
Cycle of disciplines	Credits		
	compu	theory	electly
Cycle of general disciplines (G)	58		
Cycle of basic disciplines (B)	87	25	
Cycle of special disciplines (S)	20	40	
Total of theoretical study :			
	165	65	230
Final attestation (FA)	12	0	12
Total:			
	177	65	242
OVERALL:			
	177	65	242

Decision of the Academic Council KazNRTU named after K.I.Satpayev. Minutes № 3, dated 15 06 2021.

Decision of the Academic Council of the School of Industrial Engineering. Minutes № 5, dated 14 12 2020

Vice-rector for academic affairs

Director of Geology, Oil and Mining institute

Head of department "Mining"

Representative of the Specialty Council from employers

B.A. Zhautykov

A.KH. Syzdykov

S.K. Moldabayev

N.S. Buktukov