



APPROVED

Chairman of the Management Board-
Rector of Kazntu named after K.Satpayev
M.M. Begentaev
2023 y.

CURRICULUM
of Educational Program on enrollment for 2023-2024 academic year
Educational program 6B07213 - "Mineral processing"
Group of educational programs B071 - "Mining and extraction of minerals"

Form of study: full-time Duration of study: 4 years Academic degree: Bachelor of Engineering and Technology

Discipline code	Name of disciplines	Cycle	Total amount in credits	Total hours	classroom volume of lek/lab/pr	SIS (including TSIS) in hours	Form of control	Allocation of face-to-face training based on courses and semesters							
								I course		II course		III course		IV course	
								1 semester	2 semester	3 semester	4 semester	5 semester	6 semester	7 semester	8 semester
CYCLE OF GENERAL EDUCATION DISCIPLINES (GED)															
M-1. Module of language training															
LNG108	English language	GED, RC	10	300	0/0/6	210	E	5	5						
LNG104	Kazakh (Russian) language	GED, RC	10	300	0/0/6	210	E	5	5						
M-2. Module of physical training															
KFK101-104	Physical Culture	GED, RC	8	240	0/0/8	120	Difcredit	2	2	2	2				
M-3. Module of information technology															
CSE677	Information and communication technologies (in English)	GED, RC	5	150	2/1/0	105	E				5				
M-4. Module of socio-cultural development															
HUM137	History of Kazakhstan	GED, RC	5	150	1/0/2	105	SE		5						
HUM132	Philosophy	GED, RC	5	150	1/0/2	105	E				5				
HUM120	Socio-political knowledge module (sociology, politology)	GED, RC	3	90	1/0/1	60	E				3				
HUM134	Socio-political knowledge module (culturology, psychology)		5	150	2/0/1	105	E				5				
M-5. Module of anti-corruption culture, ecology and life safety base															
HUM136	The base of anti-corruption culture and law	ED, CC	5	150	2/0/1	105	E				5				
MNG489	Fundamentals of economics and entrepreneurship														
HPP128	Fundamentals of research methods														
CHE656	Ecology and life safety														
CYCLE OF BASIC DISCIPLINES (BD)															
M-6. Module of physical and mathematical training															
MAT101	Mathematics I	BD, UC	5	150	1/0/2	105	E	5							
PHY468	Physics	BD, UC	5	150	1/1/1	105	E	5							
MAT102	Mathematics II	BD, UC	5	150	1/0/2	105	E		5						

M-7. Module of basic training													
GEN429	Engineering and computer graphics	BD, UC	5	150	1/0/2	105	E	5					
CHE495	Chemistry	BD, UC	5	150	1/1/1	105	E	5					
CHE127	Physical chemistry	BD, UC	5	150	1/1/1	105	E		5				
MET516	Magnetic and special enrichment methods	BD, CCH	5	150	1/1/1	105	E	5					
MET642	Enrichment of gold-bearing ores and technogenic raw materials				2/0/1								
MET512	Hydroaeromechanics of processing processes	BD, CCH	5	150	2/1/0	105	E		5				
MET643	Coal enrichment				2/1/0								
AUT424	Basics of automation	BD, UC	5	150	2/1/0	105	E				5		
MET521	Processes and devices of processing production	BD, CCH	5	150	2/1/0	105	E			5			
MET522	Auxiliary economy in mineral processing				2/0/1								
AUT427	Automation of production processes at concentrating plants	BD, CCH	5	150	1/1/1	105	E					5	
MET517	Flotation reagents in mineral processing				2/1/0								
MET644	Theory and practice of hydrometallurgical processes	BD, CCH	5	150	2/0/1	105	E					5	
MET645	Development of innovative equipment in enrichment				2/0/1								
MET646	Technologies for the enrichment of non-ferrous metal ores	BD, CCH	6	180	2/0/2	120	E						6
MET647	Reagent facilities of processing plants				2/0/2								
AAP179	Educational practice	BD, UC	2		0/0/2			2					
M-8. Basic training module for mineral processing													
MET501	Technological mineralogy	BD, UC	4	120	2/1/0	75	E	4					
MET185	Fundamentals of Mineral Processing (in English)	BD, UC	6	180	2/1/1	120	E		6				
MET502	Ore preparation processes and equipment	BD, UC	5	150	2/1/0	105	E			5			
MSM156	Metrology and standardization in the processing industry	BD, UC	5	150	2/0/1	105	E				5		
MET505	Gravitational enrichment methods	BD, UC	5	150	2/1/0	105	E				5		
MET186	General Metallurgy (in English)	BD, UC	5	150	2/0/1	105	E				5		
MET188	Chemistry of flotation reagents (in English)	BD, UC	4	120	2/0/1	75	E				4		
ERG512	Power supply and electrical equipment of concentrating plants	BD, UC	5	150	2/0/1	105	E					5	
CYCLE OF PROFILE DISCIPLINES (PD)													
M-9. Module of professional activity on mineral enrichment													
MET181	Tall economy and sewage treatment of concentrating factories	PD, UC	5	150	1/1/1	105	E						5
MET161	Assay and control of concentrating processes	PD, UC	5	150	1/1/1	105	E						5
MET184	Exploitation and repair of concentrating equipment	PD, UC	6	180	2/1/1	120	E						6

MIN508	Fundamentals of mining technology	PD, UC	5	150	1/0/2	105	E				5						
MET507	Flotation methods of enrichment	PD, UC	4	120	2/1/0	75	E						4				
M-10. Professional activity module																	
MET531	Enrichment of polymetallic ores	PD, CCH	5	150	1/1/1	105	E										5
MET648	Technologies for processing uranium-containing ores and concentrates				2/1/0												
MET419	Enrichment of rare metal ores	PD, CCH	4	120	2/1/0	75	E										4
MET157	Enrichment of ores of ferrous metals				1/1/1												
MET156	Modeling of concentrating processes	PD, CCH	6	180	2/1/1	120	E										6
MET151	Geotechnological methods of enriching				2/1/1												
MET536	Enrichment of mining and chemical and non-metallic raw materials	PD, CCH	5	150	2/1/0	105	E										5
MET569	Technology of underground leaching of ores				2/1/0												
MET570	Magnetic and electrical methods of lightening	PD, CCH	5	150	2/1/0	105	E										5
MET537	Enrichment of ferrous metal ores				1/1/1												
MET571	Special and combined methods of dressing	PD, CCH	5	150	1/1/1	105	E										5
MET572	Fundamentals of scientific research in ore dressing				2/1/0												
MET574	Ore beneficiation research	PD, CCH	4	120	2/1/0	75	E										4
MET453	Industrial water supply, transport and tailings of concentrating factories				2/0/1												
AAP143	Production practice I	PD, UC	2		0/0/2						2						
AAP183	Production practice II	PD, UC	3		0/0/3								3				
M-11. Module of "R&D"																	
MET564	Design of concentrating factory	PD, CCH	5	150	2/1/0	105	E										5
MET649	Digitalization of mining and processing plants				2/0/1												
M-12. Module of final attestation																	
ECA108	Final examination	FA	8														8
M-13. Module of additional types of training																	
AAP500	Military affairs	ATT	0														
Total based on UNIVERSITY:										31	29	28	32	29	31	33	27
										60	60	60	60				

Number of credits for the entire period of study					
Cycle code	Cycles of disciplines	Credits			
		required component (RC)	university component (UC)	component of choice (CCH)	Total
GED	Cycle of general education disciplines	51		5	56
BD	Cycle of basic disciplines		76	31	176
PD	Cycle of profile disciplines		30	39	
	<i>Total for theoretical training:</i>	<i>51</i>	<i>106</i>	<i>75</i>	<i>232</i>
FA	Final attestation	8			8
	TOTAL:	59	106	75	240

Decision of the Academic Council of KazNRTU named after K.Satpayev. Protocol №5, 24.11.2022 y.

Decision of the Educational and Methodological Council of KazNRTU named after K.Satpayev. Protocol №3, 17.11.2022 y.

Decision of the Academic Council of MaMI named after O. Baikonurov. Protocol №3, 15.11.2022 y.

Vice-Rector for Academic Affairs

B.A. Zhautikov

Director of the Mining and Metallurgical Institute named after O. A. Baikonurov

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Head of department "Metallurgy and mineral processing"

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