



**WORKING CURRICULUM**  
**MAJOR CURRICULUM for 2020-2021 academic year admission**  
**Educational Program 6B07205 "Mining Engineering"**  
**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

Year of study	Code	Name of discipline	Cycle	Credits	Total hours	lect/lab/pr/SW	SBS (including SRSP), in hours	prerequisite	
<b>1 semester (fall 2020)</b>									
1	LNG 1051	Beginner (A1)	G	4	120	0/0/3	75	Diagnostic an. Test	
	LNG 1052	Elementary English (A1)							
	LNG 1053	General English 1 (A2)							
	LNG 1054	General English 2 (A2)							
	LNG 1055	Academic English (B1)							
	LNG1056	Business English (B2)	G	4	120	0/0/3	75	Diagnostic an. Test	
	LNG1012	Kazakh (Russian) language (A2)							
	LNG1012.1	Academic Kazakh (Russian) language (B1)							
	LNG1012.2	Business Kazakh (Russian) language (B2)							
	LNG1012.2	Business Kazakh (Russian) language (B2)							
	MAT001	Algebra and introduction to the mat. analysis	B	5	150	0/0/3	105	Diagnostic an. Test	
	MAT101	Mathematics I							
	PHY110	Introduction to Physics	B	5	150	0/1/2	105	Diagnostic an. Test	
	PHY111	Physics I							
	GEN177	Engineering and computer graphics	B	5	150	1/1/1	105	no	
MAP160	Geodesy	B	5	150	1/2/0	105	no		
AAP106	Physical education I	G	4	60	0/0/2	60			
<b>Total:</b>				<b>32</b>		<b>20</b>			
<b>2 semester (spring 2021)</b>									
2	LNG 1052	Elementary English (A1)	G	4	120	0/0/3	75	LNG 1051	
	LNG 1053	General English 1 (A2)							
	LNG 1054	General English 2 (A2)							
	LNG 1055	Academic English (B1)							
	LNG1056	Business English (B2)							
	LNG 1057	Professional English (B2+)	G	4	120	0/0/3	75	LNG1012.1	
	LNG1012.1	Academic Kazakh (Russian) language (B1)							
	LNG1012.2	Business Kazakh (Russian) language (B2)							
	1106	ELECTIVE							
	LNG1012.2	Business Kazakh (Russian) language (B2)							
	MAT102	Mathematics II	B	5	150	1/0/2	105	MAT101	
	MAT102	Mathematics III							
	PHY111	Physics I	B	5	150	1/1/1	105	PHY1010	
	PHY112	Physics II							
	HUM100	The modern history of Kazakhstan	G	5	150	1/0/2	105	no	
MIN101	Bases of mining (Introduction to specialty)	P	5	150	1/0/2	105	no		
AAP118	Physical education II	G	4	60	0/0/2	60			
<b>Total:</b>				<b>32</b>		<b>20</b>			
<b>3 semester (fall 2021)</b>									
3	MIN109	Integrated information systems in mining	B	5	150	1/2/0	105	MIN101	
	MAT102	Mathematics II	B	5	150	1/0/2	105	MAT101	
	MAT103	Mathematics III							
	PHY112	Physics II	B	5	150	1/1/1	105	PHYS111	
	PHY530	Physics III							
	HUM132	Philosophy	G	5	150	1/0/2	105	no	
	GEO475	Fundamentals of geology	B	5	150	2/1/0	105	MAT102	
	MIN442	Shattering process	B	5	150	1/1/1	105	no	
	<b>Total:</b>				<b>30</b>		<b>20</b>		
	<b>4 semester (spring 2022)</b>								
4	HUM126	Social-political knowledge	G	8	240	4/0/0	180	no	
	CSE677	Information and Communications Technology	G	5	150	2/1/0	105	no	
	MIN443	Numerical 3D modeling of geomechanical processes	B	5	150	1/2/0	105		
	MIN447	Physics of rock mass	B	5	150	1/2/0	105	MIN101	
	MIN448	Construction of mining enterprises	B	5	150	1/1/1	105	MIN101	
	2215	Elective	B	5	150	2/0/1	105		
	<b>Total:</b>				<b>33</b>		<b>21</b>		
	<b>5 semester (fall 2022)</b>								
	5	MNG487	Fundamentals of entrepreneurship, leadership, and anti-corruption culture	G	3	90	1/0/1	60	
		MIN453	Open-cast mining technology	B	5	150	1/0/2	105	MIN101
3217		Elective	B	5	150	1/2/0	105		
3218		Elective	B	5	150	2/0/1	105		
3302		Elective	P	5	150	2/0/1	105		
3219		Elective	B	5	150	2/0/1	105		
<b>Total:</b>				<b>28</b>		<b>18</b>			
<b>6 semester (spring 2023)</b>									
6	CHE452	Ecology, life safety and sustainable development	G	2	60	1/0/0	45		
	CHE451	Life safety	G	2	60	1/0/0	45		
	MIN458	Technology of underground mining operations	B	5	150	1/0/2	105	MIN101	
	MET179	Processing and enrichment of minerals	P	5	150	2/1/0	105		
	3221	Elective	B	5	150	2/0/1	105		
	3305	Elective	P	5	150	2/0/1	105		
	3306	Elective	P	5	150	2/0/1	105		
<b>Total:</b>				<b>29</b>		<b>17</b>			
<b>7 trimester (fall 2023)</b>									
7	MIN481	Aerology of concessions	P	5	150	2/1/0	105		
	4308	Elective	P	5	150	2/0/1	105		
	4309	Elective	P	5	150	2/0/1	105		
	4310	Elective	P	5	150	2/0/1	105		
	<b>Total:</b>				<b>20</b>		<b>12</b>		
<b>8 trimester (spring 2024)</b>									
8	4311	Elective	P	5	150	2/0/1	105		
	4312	Elective	P	5	150	2/0/1	105		
	ECA003	Preparation and writing of the thesis (project)	FA	6					
	ECA103	Defense of thesis (project)	FA	6					
<b>Total:</b>				<b>22</b>		<b>6</b>			

  

Year of study	Code	Name of discipline	Cycle	Credits
Mandatory types of training with a P/NP rating				
1	AAP101	Training Practice	B	2
2	AAP141	Industrial internship I	B	4
3	AAP166	Industrial internship II	P	8
Additional types of training				
1	AAP107	Sports Club sectional	G	0
2-3	AAP500	Military training	B	0

  

Number of credits for the entire period of study				
Cycles of disciplines	Credits			
	comp	ul-	electr	total
The cycle of general educational disciplines (G)	54	4		58
The cycle of basic disciplines (B)	91	25		116
The cycle of profiling disciplines (P)	23	40		63
<b>Total of theoretical study :</b>	<b>166</b>	<b>69</b>		<b>237</b>
Final attestation (FA)	12	0		12
<b>total</b>	<b>12</b>	<b>0</b>		<b>12</b>
<b>Classroom volume in theoretical training credits</b>	<b>178</b>	<b>69</b>		<b>249</b>

The decision of the Academic Council of KazNRTU named after K.I. Satpavev. Protocol №3 from 25.06 2021

Decision of Geology, Oil and Mining institute Protocol №5 from 24.12 2020

Vice-rector for academic affairs

B.A. Zhautykov

Director of Geology, Oil and Mining institute

A.KH. Syzdykov

Head of department "Mining"

S.K. Moldabayev

Representative of Specialty council

N.S. Buktukov