



WORKING CURRICULUM for 2021-2022 academic year admission
Educational program 8070115 - Technological machines and equipment (by industry)
Group of Educational programs 8064 - "Mechanics and metal working"

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	IWS (including IWSI), in hours	Code	pre-requisites
1 semester (fall 2021)									
1	LNG108	English	G	5	150	0/0/3	105		Diagnostic test
	LNG104	Kazakh (Russian) language	G	5	150	0/0/3	105		Diagnostic test
	HUM100	Modern history of Kazakhstan	G	5	150	1/0/2	105		
	PHY111	Physics I	B	5	150	1/1/1	105		
	MAT101	Mathematics I	B	5	150	1/0/2	105		
	HUM128	Political science	G	2	60	1/0/0	45		
	KFK101	Physical education I	G	2	60	0/0/2	30		
Total:				29		18			
3 semester (fall 2022)									
2	CSE677	Information and Communication technology	G	5	150	2/1/0	105		
	HUM127	Sociology	G	2	60	1/0/0	45		
	CHE452	Ecology and sustainable development	G	2	60	1/0/0	45		
	GEN411	Theoretical and applied mechanics	B	5	150	2/1/0	105		
	EUC186	Electrotechnics	B	5	150	2/1/0	105		
	TEC463	Interchangeability, standardization and technical measurements	B	5	150	2/0/1	105		
	GEN177	Engineering and computer graphics	B	5	150	1/0/2	105		
KFK103	Physical education III	G	2	60	0/0/2	30			
Total:				31		19			
5 semester (fall 2023)									
3	TEC401	Reliability of technological machines	B	5	150	2/0/1	105		
	TEC201	The dynamics and durability of technological machines	B	5	150	2/0/1	105		
	NSE143	Industrial economics	B	5	150	2/0/1	105		
	3217	Elective	B	5	150		105		
	3218	Elective	B	5	150		105		
3301	Elective	S	5	150		105			
Total:				30		18			
7 semester (fall 2024)									
4	4305	Elective	S	5	150		105		
	4306	Elective	S	5	150		105		
	4307	Elective	S	5	150		105		
	4308	Elective	S	5	150		105		
	4309	Elective	S	5	150		105		
Total:				25		15			

Code	Name of discipline	Cycle	Total Credits	Total hours	lec/lab/pr	IWS (including IWSI), in hours	Code	pre-requisites	
2 semester (spring 2022)									
LNG108	English	G	5	150	0/0/3	105			
LNG104	Kazakh (Russian) language	G	5	150	0/0/3	105			
1204	Elective	B	5	150	2/0/1	105			
PHY112	Physics II	B	5	150	1/1/1	105			
MAT102	Mathematics II	B	5	150	1/0/2	105			
HUM129	Culturology	G	2	60	1/0/0	45			
CHE495	Chemistry	B	5	150	1/1/1	105			
KFK102	Physical education II	G	2	60	0/0/2	30			
Total:				34		21			
4 semester (spring 2023)									
HUM124	Philosophy	G	5	150	2/0/1	105			
HUM122	Psychology	G	2	60	1/0/0	45			
MNG487	Fundamentals of Entrepreneurship, Leadership and Anti-corruption culture	G	3	90	1/0/1	60			
CHE451	Life safety	G	2	60	1/0/0	45			
GEN125	Bases of designing and details of cars	B	5	150	1/1/1	105			
PEC436	Thermodynamics, heat transfer and heat engineering equipment	B	5	150	2/0/1	105			
TEC460	Construction materials processing machinery and equipment	B	5	150	2/1/0	105			
KFK104	Physical education IV	G	2	60	0/0/2	30			
Total:				29		18			
6 semester (spring 2024)									
SAF110	Labor protection	B	5	150	1/0/2	105			
TEC461	Basics of hydraulics and hydraulic drives of technological machines	B	5	150	2/0/1	105			
TEC458	Installation and exploitation of technological machines	S	5	150	2/0/1	105			
TEC459	Repair of technological machines	S	5	150	2/0/1	105			
3221	Elective	B	5	150		105			
3304	Elective	S	5	150		105			
Total:				30		18			
8 semester (spring 2025)									
4310	Elective	S	5	150		105			
4311	Elective	S	5	150		105			
ECA003	Preparation and writing of the thesis (project)	FA	6						
ECA103	Graduate thesis (project) defense	FA	6						
Total:				22		6			

Year of study	Code	Name of discipline	Cycle	Credits	Semester
Mandatory types of training with a P/NP rating					
1	AAP101	Internship	B	2	2
2	AAP109	Industrial internship I	B	5	4
3-4	AAP158	Industrial internship II	S	5	6
Additional types of training					
1		Sports club sectional	G	0	5-7
2-3	AAP500	Military training	G	0	3-6

Cycle of disciplines	Credits		
	compulsory	elective	total
Cycle of general disciplines (G)	51	7	58
Cycle of basic disciplines (B)			112
Cycle of special disciplines (S)	60		60
Total of theoretical study:			230
Final attestation (FA)	12		12
Total:			242

Decision of the Academic Council of KazNRTU named after K. Satbayev, Minutes # 3 dated 05.06.2021
 Decision of the Educational and Methodological Council of KazNRTU named after K. Satbayev, Minutes # 6 dated 14.06.2021
 Decision of the Academic Council of the School of Metallurgy and Industrial Engineering, Minutes # 12 dated 07.06.2021.

Vice-Rector for Academic Affairs

Director of the Institute of Metallurgy and Industrial Engineering

Head of department TMT&L

Representative of Specialty council

B.A.Zhautikov

K. B. Rysbekov

K.K. Yelemessov

M.A. Kanatbaev