



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 8D07111 - "Digitalization of machine-building production"
 Group of Educational programs D103 - "Mechanics and metalworking"

Form of study: full-time

Duration of study: 3 year

Academic degree: Doctor of Philosophy (PhD)

Discipline code	Name of disciplines	Cycle	Total amount in credits	Total hours	Classroom amount lec/lab/pr	SIS (including TSIS) in hours	Form of control	Allocation of face-to-face training based on courses and semesters						
								1 course			2 course			
								1 semester	2 semester	3 semester	4 semester	5 semester	6 semester	
CYCLE OF BASIC DISCIPLINES (BD)														
M-1. Technical training module (university component)														
MET322	Scientific research methods	BD UC	5	150	2/0/1	105	E	5						
LNG305	Academic writing	BD UC	5	150	0/0/3	105	E	5						
Component of choice														
MSM307	Virtual production	BD CCH	5	150	2/0/1	105	E	5						
MSM306	Advanced Digital factory													
CYCLE OF PROFILE DISCIPLINES (PD)														
M-2. Digital Engineering Module (component of choice)														
IND319	Advanced optimization	PD CCH	5	150	2/0/1	105	E	5						
IND311	Advanced production systems													
IND317	Advanced design of industrial experiments	PD CCH	5	150	2/0/1	105	E	5						
IND321	Advanced solution analysis													
M-3. Practice-oriented module														
AAP350	Pedagogical practice	BD UC	10							10				
AAP355	Research practice	PD UC	10								10			
M-4. Experimental research module														
AAP336	Research work of a doctoral candidate, including internships and completion of a doctoral dissertation	RWDS UC	5						5					
AAP347	Research work of a doctoral candidate, including internships and completion of a doctoral dissertation	RWDS UC	40							20	20			
AAP356	Research work of a doctoral candidate, including internships and completion of a doctoral dissertation	RWDS UC	60									30	30	
AAP348	Research work of a doctoral candidate, including internships and completion of a doctoral dissertation	RWDS UC	18											18
M-5. Module of final attestation														
ECA303	Writing and defending a doctoral dissertation	FA	12											12
Total based on UNIVERSITY:								30	30	30	30	30	30	
								60	60	60	60	60	60	

Number of credits for the entire period of study				
Cycle code	Cycles of disciplines	Credits		
		university component (UC)	component of choice (CCH)	Total
BD	Cycle of basic disciplines	20	5	25
PD	Cycle of profile disciplines	10	10	20
	Total for theoretical training:	0	30	45
	RWDS			123
FA	Final attestation	12		12
	TOTAL:	12	30	180

Decision of the Academic Council of Kazntu named after K.Satpayev. Protocol № 3 or "AT" 10 20 24.
 Decision of the Educational and Methodological Council of Kazntu named after K.Satpayev. Protocol № 2 or "M" 10 20 24.
 Decision of the Academic Council of the Institute E&ME. Protocol № 2 or "M" 10 20 24.

Vice-Rector for Academic Affairs B. A. Zhautikov
 E&ME Institute Director K. Yelemessov
 ME Department Head E. Nugman
 Representative of the Council for EP from Employers M. Azimbekov