MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN
KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY named after K. I. SATPAYEV

SATBAYEV UNIVERSITY

APPROVED
Chairman of the Board –
Rector K.I. Satpayev
M.M.
"" 2021

WORKING CURRICULUM for 2020-2021 academic year admission

Educational program 7M07111 - "Digital Engineering of Machines and Equipment"

Group of Educational programs M103 - "Mechanics and metal working"

Full-time study | Study duration : 2 years | Academic degree: Master of Engineering Sci...

Year of study	Code	Name of discipline	Cycle	Total Credits	Total hours	lec/lab/pr	IWS (including IWST), in hours	pre-requisites	Code	Name of discipline	Cycle	Total Credits	Total hours	lec/lab/pr	IWS (including IWST), in hours	pre-requisites
	1 semester								2 semester							
1	LNG210	English language (professional)	BD IC	5	150	0/0/3	105		AAP244	Teaching practice	BD IC	4				
	HUM208	Psychology of management	BD IC	3	90	1/0/1	60		HUM210	History and philosophy of science	BD IC	4	120	1/0/1	90	
	TEC297	Innovative installation and commissioning methods for machines and equipment	BD OC	5	150	2/0/1	105		HUM209	Pedagogy of Higher education	BD IC	4	120	1/0/1	90	
	TEC700	The system of full maintenance Technological machines and equipment							TEC706	Innovative drives of machinery and equipment	BD OC	5	150	2/0/1	105	
	TEC701	Intellectual Property Protection	BD OC	5	150	2/0/1	105		TEC707	Innovative technologies for monitoring and diagnosing the state of technological machines						
	TEC702	Licensing and copyright							TEC709	Energy-saving technologies in the operation of technological machines	PS OC	5	150	2/0/1	105	
	TEC703	Digital methods and means of measuring the parameters of technological machines	PS IC	5	150	2/0/1	105		TEC708	Energy-saving technologies in practice of operation Technological machines and equipment						
	TEC705	Digital monitoring of machines and equipment	PS IC	5	150	2/0/1	105		TEC710	Predictive maintenance systems for process equipment	PS OC	5	150	2/0/1	105	
									TEC543	Innovative logistics service in repair production						
	AAP242	Scientific research work of master's	SRWM	6					AAP242	Scientific research work of master's	SRWM	6				
		Total:		34						Total:		33				
2	3 semester								4 semester							
	TEC711	The use of digital technology in the design and construction of technological machines	PS OC	5	150	2/0/1	105		AAP236	Research practice	PS OC	7				
	TEC712	Innovative equipment and technologies in industry							ECA205	Registration and protection of the master thesis	FA	12				
	TEC713	Innovative methods for repairing machine parts	PS OC	5	150	2/0/1	105									
	TEC714	Theory and practice of operation and repair of hydro machines and compressors														
	TEC715	Intelligent management of technological equipment complexes	PS OC	5	150	2/0/1	105									
	TEC716	Heattechnical equipment and power plants														
	TEC717	Lubricants and lubrication system for technological machines and equipment	PS OC	5	150	2/0/1	105									
	TEC718	Innovative construction materials of tehnological machines														
	TEC704	Digital methods and means of technical diagnostics of technological machines and equipment	PS OC	5	150	2/0/1	105									
	TEC719	Innovative technologies in the practice of maintenance and repair of technological machines														
	AAP242	Scientific research work of master's	SRWM	6					AAP242	Scientific research work of master's	SRWM	6				
		Total:		31						Total:		25				

Decision of the Academic Council KazNRTU named after K. I. SATPAYEV. Minutes # 3, dated 25 06 2021.

Decision of the Academic Council of the Institute. Minutes # 11 dated 17 06 2021.

Vice-Rector for Academic Affairs — B.A.Zhautikov

Director of the School of Metallurgy and Industrial Engineering — K. A. Rysbekov

Head of department "Technological machines and transport" — K.K. Yelemessov

Total number of credits	
Cycle of disciplines	Credits
Cycle of basic disciplines (BD IC, BD OC)	35
Cycle of special disciplines (PS IC, PS OC)	52
Total of theoretical study :	87
SRWM	24
Registration and protection of the master thesis (RaPMT)	12
Total:	123