



MODULAR EDUCATIONAL PROGRAM

Education program 7M07111 - Digital engineering of machines and equipment"

Full-time study Term of study: 2 years Academic Degree: Master of technical Sciences

*Cycle	Code	Name of course	Semester	Academic credits	lecture	laboratory	practice	MSIW	Type of control	Department
Profile training module										
Basic disciplines (BD) (35 credits)										
Institute component (IC) (22 credits)										
BD 1.1.1	LNG202	Foreign language (professional)	2	6	0	0	3	3	Exam	EL
BD 1.2.1	HUM201	History and philosophy of science	1	4	1	0	1	2	Exam	SS
BD 1.3.1	HUM207	Higher school pedagogy	1	4	1	0	1	2	Exam	SS
BD 1.4.1	HUM204	Management psychology	2	4	1	0	1	2	Exam	SEPMC
Practice-oriented module										
	AAP244	Pedagogical practice	2	4					Report	TMT&L
Optional component (OC) (18 credits)										
Professional Engineering Training Module										
BD1. 5.1	TEC524	Innovative installation and commissioning methods for machines and equipment	1	6	2	0	1	3	Exam	TMT&L
BD1. 5.2	TEC517	The system of full maintenance Technological machines and equipment								
BD1. 6.1	TEC523	Intellectual Property Protection	1	6	2	0	1	3	Exam	TMT&L
BD1. 6.2	TEC277	Licensing and copyright								
BD1. 7	TEC525	Innovative drives of machinery and equipment								
BD1. 7.2	TEC521	Innovative technologies for monitoring and diagnosing the state of technological machines	2	6	2	0	1	3	Exam	TMT&L
Profile disciplines (PD) (49 credits)										
The module of innovative technologies										
Optional component (OC)										
PD2. 1.1	TEC526	Digital methods and means of measuring the parameters of technological machines	1	6	2	0	1	3	Exam	TMT&L
PD2. 1.2	TEC518	Technology of installation and commissioning technological machines and equipment								
PD2. 2.1	TEC542	Predictive maintenance systems for process equipment								
PD2. 2.2	TEC519	Energy-saving technologies in practice of operation technological machines and equipment	2	6	2	0	1	3	Exam	TMT&L

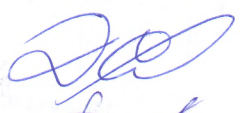
PD2.3.1	TEC530	Digital monitoring of machines and equipment											
PD2.3.2	TEC520	Innovative technologies in the practice of maintenance and repair of technological machines	2	6	2	0	1	3	Exam	TMT&L			
PD2.4.1	TEC532	The use of digital technology design and construction of technological machines	3	6	2	0	1	3	Exam	TMT&L			
PD2.4.2	TEC202	Innovative equipment and technologies in industry											
PD2.5.1	TEC533	Innovative methods for repairing machine parts											
PD2.5.2	TEC208	Theory and practice of operation and repair of hydro machines and compressors	3	6	2	0	1	3	Exam	TMT&L			
PD2.6.1	TEC544	Intelligent management of technological equipment complexes	3	6	2	0	1	3	Exam	TMT&L			
PD2.6.2	TEC209	Heattechnical equipment and power plants											
PD2.7.1	TEC545	Lubricants and lubrication system for technological machines and equipment											
PD2.7.2	TEC217	Tribonika and tribology in the practical operation of the mining and metallurgical equipment	3	6	2	0	1	3	Exam	TMT&L			
Practice-oriented module													
PD2.8	AAP236	Research scientific training	4	7					Report	TMT&L			
Research module (24 credits)													
MSS R	AAP242	Master's student scientific research, including an internship and a master's thesis	1	6					Report				
MSS R	AAP242	Master's student scientific research, including an internship and a master's thesis	2	6					Report				
MSS R	AAP242	Master's student scientific research, including an internship and a master's thesis	3	6					Report				
MSS R	AAP242	Master's student scientific research, including an internship and a master's thesis	4	6					Report				
The module final assessment (12 credits)													
FA	ECA205	Registration and defense of the master's thesis (RaDMT)	4	12					Defense of the master's thesis				
In total:				125									

Vice-Rector for Research and Academic Affairs

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Head of department TM,T&L


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K. Tulegenova

K. Yelemessov


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