



**CURRICULUM**  
of Educational Program on enrollment for 2024-2025 academic year

Educational program 7M06101 - "Software Engineering"  
Group of educational programs M094 - "Information technology"

Form of study: full-time

Duration of study: 2 year

Academic degree: Master of Engineering Science

Discipline code	Name of disciplines	Cycle	Total amount in credits	Total hours	Classroom amount lec/lab/pr	SIS (including TSIS) in	Form of control	Allocation of face-to-face training based on			
								1 course		2 course	
								1 semester	2 semester	3 semester	4 semester
<b>CYCLE OF BASIC DISCIPLINES (BD)</b>											
<b>M-1. Module of basic training (university component)</b>											
LNG213	English (professional)	BD, UC	3	90	0/0/2	60	E	3			
HUM214	Management Psychology	BD, UC	3	90	1/0/1	60	E	3			
HUM212	History and philosophy of science	BD, UC	3	90	1/0/1	60	E		3		
HUM213	Higher school pedagogy	BD, UC	3	90	1/0/1	60	E		3		
<b>component of choice</b>											
ICT200	Advanced Software Development	BD CCH	5	150	1/0/2	105	E		5		
ICT215	IT project management				2/0/1						
MNG781	Intellectual property and research	BD CCH	5	150	2/0/1	105	E		5		
ICT216	High load distributed computing				2/0/1						
ICT201	Methods of optimal management decisions				1/0/2						
MNG782	Sustainable development strategies	BD CCH	5	150	2/0/1	105	E		5		
CSE795	Cloud Technologies				2/0/1						
ICT202	Ecosystem Modeling	BD CCH	5	150	1/0/2	105	E			5	
<b>CYCLE OF PROFILE DISCIPLINES (PD)</b>											
<b>M-2. Module of professional activity (university component, component of choice)</b>											
CSE770	Methodology of scientific research and innovation	PD, UC	5	150	2/0/1	105	E	5			
ICT204	Software architecture and design	PD, UC	5	150	1/0/2	105	E	5			
CSE784	Artificial Intelligence and Machine Learning	PD CCH	5	150	2/0/1	105	E	5			
CSE787	Big Data processing and applications				2/0/1						
ICT209	System and network administration				1/0/2						
ICT205	DevOps engineering	PD, UC	5	150	1/0/2	105	E		5		
CSE756	QA/QC and Continuous Integration	PD, UC	5	150	2/0/1	105	E	5			
ICT210	Virtual and augmented reality (VR/AR)	PD CCH	5	150	1/0/2	105	E		5		
ICT211	Mobile computing and applications										
ICT206	Software reliability	PD CCH	5	150	1/0/2	105	E			5	
ICT207	Business Process Modeling										
CSE791	Development of Intelligent Applications	PD CCH	5	150	2/0/1	105	E			5	
CSE793	Generative AI										
SEC232	Business Intelligence	PD, UC	5	150	2/0/1	105	E				5
CSE794	Reserch Project	PD, UC	4	120	2/0/1	75	E			4	
<b>M-3. Practice-oriented module</b>											
AAP229	Pedagogical practice	BD, UC	8							8	
AAP256	Research practice	PD, UC	4								4
<b>M-4. Experimental research module</b>											
AAP268	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	4					4			
AAP268	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	4						4		
AAP251	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	2							2	
AAP255	Research work of a master's student, including internship and completion of a master's thesis	RWMS UC	14								14
<b>M-5. Module of final attestation</b>											
ECA212	Preparation and defense of a master's thesis	FA	8								8
<b>Total based on UNIVERSITY:</b>								30	30	29	31
								60	60		

Number of credits for the entire period of study					
Cycle code	Cycles of disciplines	Credits			
		Int	Pr	Se	Total
BD	Cycle of basic disciplines		20	15	35
PD	Cycle of profile disciplines		33	20	53
	<i>Total for theoretical training:</i>	0	53	35	88
	RWMS		24		24
FA	Final attestation	8			8
	<b>TOTAL:</b>	8	77	35	120

Decision of the Academic Council of Kazntu named after K.Satpayev. Protocol № 11 от "21" 04 2024 y.

Decision of the Educational and Methodological Council of Kazntu named after K.Satpayev. Protocol № 6 от "19" 04 2024 y.

Decision of the Academic Council of the Institute of Automation and Information Technology. Protocol № 8 от "19" 02 2024 y.

Vice-Rector for Academic Affairs

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