



WORKING CURRICULUM

Academic year

2025-2026 (Spring, Autumn)

Group of educational programs

M095 - "IT Security"

Educational program

7M06303 - "Comprehensive information security"

The awarded academic degree

Master of engineering and technology

Form and duration of study

full time (professional track) - 1 years

Discipline code	Name of disciplines	Block	Cycle	Total ECTS credits	Total hours	Lek/lab/pr Contact hours	in hours SIS (including TSIS)	Form of control	Allocation of face-to-face training based on courses and semesters		Prerequisites
									1 course		
									1 sem	2 sem	
CYCLE OF GENERAL EDUCATION DISCIPLINES (GED)											
CYCLE OF BASIC DISCIPLINES (BD)											
M-1. Module of basic training (university component)											
LNG212	Foreign language (professional)		BD, UC	2	60	0/0/30	30	E	2		
MNG726	Management		BD, UC	2	60	15/0/15	30	E	2		
HUM211	Psychology of management		BD, UC	2	60	15/0/15	30	E	2		
SEC257	Security of virtualization and cloud technologies	1	BD, CCH	4	120	30/0/15	75	E	4		
SEC256	Python for solving Information security problems	1	BD, CCH	4	120	15/0/30	75	E	4		
CYCLE OF PROFILE DISCIPLINES (PD)											
M-3. Practice-oriented module											
AAP253	Internship		PD, UC	5				R		5	
M-4. Experimental and research module											
AAP257	Experimental research work of a master student, including an internship and the implementation of a master's project		ERWMS	13				R		13	
M-5. Module of final attestation											
ECA213	Design and defense of the master's project		FA	8						8	
M-2. M-2. Module of professional activity (university component, component of choice)											
SEC215	Organization of information security systems		PD, UC	5	150	15/15/15	105	E	5		
SEC251	IT project and information risk management		PD, UC	4	120	30/0/15	75	E	4		
SEC204	Information Security Audit	1	PD, CCH	5	150	30/0/15	105	E	5		
SEC245	Risk management in cyber security	1	PD, CCH	5	150	30/0/15	105	E	5		
SEC246	Big Data and Data Analysis	2	PD, CCH	5	150	30/15/0	105	E	5		
CSE746	Machine Learning & Deep Learning	2	PD, CCH	5	150	30/0/15	105	E	5		
SEC214	Organization of protection and safety of a database		PD, UC	5	150	30/0/15	105	E		5	
Total based on UNIVERSITY:									29	31	
									60		

Number of credits for the entire period of study

Cycle code	Cycles of disciplines	Credits			
		Required component (RC)	University component (UC)	Component of choice (CCH)	Total
GED	Cycle of general education disciplines	0	0	0	0
BD	Cycle of basic disciplines	0	6	4	10
PD	Cycle of profile disciplines	0	19	10	29
Total for theoretical training:		0	25	14	39
RWMS	Research Work of Master's Student				0
ERWMS	Experimental Research Work of Master's Student				13
FA	Final attestation				8
TOTAL:					60

Decision of the Educational and Methodological Council of KazNRTU named after K.Satpayev. Minutes № 3 dated 20.12.2024

Decision of the Academic Council of the Institute. Minutes № 4 dated 22.11.2024

Signed:

Governing Board member - Vice-Rector for Academic Affairs

Uskenbayeva R. K.

Approved:

Vice Provost on academic development

Kalpeyeva Z. B.

Head of Department - Department of Educational Program
Management and Academic-Methodological Work

Zhumagaliyeva A. S.

acting Director of Institute - Institute of Automation and
Information Technologies

Chinibayev Y. I.

Department Chair - Cybersecurity, information processing and
storage

Satybaldiyeva R. Ж.

Representative of the Academic Committee from Employers

Pokusov V. V.

____Acknowledged____

