National Research University Higher School of Economics (HSE)

Curriculum
Field of study 10.05.01 "Cyber Security"
Educational Programme "Cyber Security"

Tikhonov Moscow Institute of Electronics and Mathematics, Moscow
4th, 2022/2023 year of study

Length of Programme: 6 years
Years of Study: 2019/2020 - 2024/2025
Mode of Study: Full Time
Degree: Specialist's Degree

Number of Students: 61
Number of Groups: 2

Block Code	Course	Department	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
						1	2	3	4	
	(!! !!)		60	2280	632	138	184	176	128	
1	Block 1. Courses (Modules)		46	1748	594	130	176	168	120	
. .	General Programme Part		6	228	54	6	8	26	14	
1	Philosophy	(!)	3	114	30			16	14A	
2	Project Management	Department of Applied Mathematics	3	114	24	6A	8	10A		Online Course
.	Professional Programme Part (Major)		40	1520	540	124	168	142	106	
. .	Basic Components		28	1064	372	124	156	68	24	
3	Operating Systems	Department of Applied Mathematics	5	190	62	28	34A			
4	Database Management Systems (offered in English)	Department of Applied Mathematics	4	152	42		20	22A		
5	Systems and Networks of Information Transfer	School of Electronic Engineering	4	152	60	30	30A			Online Course
6	Computer Security Models	Department of Computer Security	5	190	60	28	32A			
7	Cryptographic Methods of Information Security	Department of Computer Security	7	266	96	24	24A	24	24A	
8	Term Paper Cryptographic Methods of Information Security								vA	
9	English for Research and Publication Purposes (offered in English)	School of Foreign Languages	3	114	52	14A	16	22A		
. .	(!! ' !!)		12	456	168	0	12	74	82	
	(!! !!)		12	456	168		12	74	82	

		Block 1		**12**	**456**	**168**		**12**	**74**	**82**	
5		Information Security Management	Department of Computer Security	3	114	32		12	20A		
6		Methods for searching for vulnerabilities and penetration into information systems	Department of Computer Security	3	114	40			20	20A	
7		Microcontroller Systems	School of Computer Engineering	3	114	64			34	30A	
8		How to Process and Store Big Data and Machine Learning	Department of Computer Security	3	114	32				32A	
		Block 2		**12**	**456**	**162**	**20**	**32**	**66**	**44**	
1		Theory of Coding, Compression and Data Recovery	Department of Computer Security	3	114	40	20	20A			
4		Methods of Information Security in Financial and Banking Activities	Department of Computer Security	3	114	32		12	20A		
6		Number Theory Methods in Cryptography	Department of Computer Security	3	114	42			22	20A	
7		Theory of Pseudo-random Generators	Department of Computer Security	3	114	48			24	24A	
2	Block 2. Practice(s), Project and(or) Research work			**14**	**532**	**38**	**8**	**8**	**8**	**8**	
	Project Activity			**9**	**342**	**36**	**8**	**8**	**8**	**8**	
1	Project Seminar		Department of Computer Security	3	114	32	8	8	8	8A	
2	(!)			6	228	4				vA	
	Internships			**5**	**190**	**2**					
1	Work Experience Internship			5	190	2					

A Interim assessment