



National Research University Higher School of Economics (HSE)

Curriculum
Speciality 10.05.01 Cyber Security
Educational Programme "Cyber Security"
Specializations: "Development of Secure Software",
"Mathematical Methods of Information Security"
Implementing unit: Tikhonov Moscow Institute of Electronics and
Mathematics, HSE - Moscow
2 nd, 2024/2025 academic year

APPROVED
03.05.2024
Vice Rector
ROSHCHIN S.Y.
Signed with EDS

Length of Programme: 5 years 6 months
Years of Study: 2023/2024 - 2028/2029
Mode of Study: Full Time
Degree: Specialist's degree

Block Code	Course	Subject type	Department	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
							1	2	3	4	
Degree Programme				60,00	2 442	1 107	224	233	324	326	
Data Culture						6		2		4	
1	External Examinations on Digital Skills. Entry-level	C	отдел развития цифровых компетенций			2		2A			
2	External Examinations on Digital Skills. Intermediate Level	C	отдел развития цифровых компетенций			2				2A	
3	Independent Programming Test. Intermediate	C	отдел развития цифровых компетенций			2				2A	Online Course
Major				45,00	1 710	794	148	154	248	244	
Core Professional Block (Major)				36,00	1 368	652	112	112	214	214	
1	Algebra	C	Department of Computer Security	6,00	228	112	28A	28A	28	28A	
2	History of Cryptography	C	Department of Computer Security	3,00	114	56			28	28A	
3	Mathematical Logic and Theory of Algorithms	C	Department of Applied Mathematics	3,00	114	64			32	32A	
4	Calculus	C	Department of Applied Mathematics	9,00	342	128	28	28A	36	36A	
5	Organizational and Legal Support for Information Security	C	Department of Computer Security	3,00	114	56			28	28A	
6	Probability Theory	C	Department of Computer Security	3,00	114	60			30	30A	
7	Physics	C	School of Electronic Engineering	3,00	114	64	32	32A			
8	Electronics	C	School of Electronic Engineering	3,00	114	64			32	32A	

9	Programming Languages	C	Department of Applied Mathematics	3,00	114	48	24	24A			
Elective Professional Block (Major)				9,00	342	142	36	42	34	30	
Дисциплины по выбору ОП				9,00	342	142	36	42	34	30	
1	Computer Mathematics: Supplementary Chapters	C	Department of Applied Mathematics	3,00	114	48	24	24A			Foreign language
2	Basics of Information Security	C	Department of Computer Security	3,00	114	30	12A	18A			Online Course
3	Assembly Language	C	Department of Applied Mathematics	3,00	114	64			34	30A	
Minor				10,00	380	152	38	38	38	38	
1	Minor	E		10,00	380	152	38	38A	38	38A	
English											
Optional Courses											
1	English	O		6,00	228	104	28	32	44A		Foreign language, Credits only to the cumulative rating
General Courses				1,00	200	144	36	36	36	36	
Core General Courses				1,00	200	144	36	36	36	36	
1	Physical Training	C	Department of Physical Training	1,00	200	144	28	28	44	44A	
Internship				4,00	152	11	2	3	2	4	
Research Internship						2				2	
1	Organizational and Legal Support for Information Security	C				2				2A	
2	Basics of Information Security	C									
Project Internship				4,00	152	9	2	3	2	2	
1	Research or Applied Project	C		4,00	152	9	2	3	2	2A	

Curriculum agreed:

Academic Supervisor LOS A.B. 17.04.2024

Dean KROUK E.A. 18.04.2024

Head of Centre for Educational Model Design LEPESHKIN I.A. 26.04.2024

* Subject type:

Compulsory course

C

Elective course

E

Optional course

O