



National Research University Higher School of Economics (HSE)

Curriculum
 Speciality 10.05.01 Cyber Security
 Educational Programme "Cyber Security"
 Specializations: "Mathematical Methods of Information Security"
 Implementing unit: Tikhonov Moscow Institute of Electronics and
 Mathematics, HSE - Moscow
 3 rd, 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: 2022/2023 - 2027/2028
 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	2 280	838	224	246	198	170	
Data Culture						4		2		2	
1	External Examinations on Digital Skills. Final Level	C	отдел развития цифровых компетенций			2		2A			
2	Independent Programming Test. Intermediate	C	отдел развития цифровых компетенций			2				2A	Online Course
Major				42,00	1 596	644	170	188	158	128	
Core Professional Block (Major)				27,00	1 026	392	104	112	92	84	
1	Mathematical Statistics	C	Department of Computer Security	5,00	190	60	30	30A			
2	Machine Learning	C	Department of Computer Security	5,00	190	60	30	30A			
3	Programming Techniques	C	Department of Applied Mathematics	4,00	152	48			24	24A	Foreign language
4	Operating Systems	C	Department of Applied Mathematics	6,00	228	112	20	28	36A	28A	
5	Circuit Engineering	C	School of Electronic Engineering	3,00	114	48	24	24A			
6	Information Theory	C	Department of Computer Security	4,00	152	64			32	32A	
Elective Professional Block (Major)				15,00	570	252	66	76	66	44	
Дисциплины по выбору ОП				15,00	570	252	66	76	66	44	
1	English for Specific Purposes. IT and Cyber Security	C	School of Foreign Languages	3,00	114	56	14A	20	22A		Foreign language
2	Differential Equations	C	Department of Applied Mathematics	3,00	114	44	20	24A			

3	Methods of Data Analysis	C	Department of Applied Mathematics	3,00	114	48			24	24A	
4	Development of Client-server Applications and Neural Network Models in Python	C	Department of Computer Security	3,00	114	40			20	20A	
5	Python Programming Language	C	Department of Applied Mathematics	3,00	114	64	32	32A			Online Course
Minor				10,00	380	152	38	38	38	38	
1	Minor	E		10,00	380	152	38	38A	38	38A	
English						2			2		
Examinations						2			2		
1	Independent English Exam	C	School of Foreign Languages			2			2A		Foreign language
General Courses				4,00	152	30	14	16			
Optional General Courses				4,00	152	30	14	16			
1	Economics	C	Department of Theoretical Economics	4,00	152	30	14	16A			Online Course
Internship				4,00	152	6	2	2		2	
Research Internship						4	2	2			
1	Mathematical Statistics	C				4	2	2A			
Project Internship				4,00	152	2				2	
1	Research or Applied Project	C		4,00	152	2				2A	

Curriculum agreed:

Academic Supervisor	LOS A.B.	18.04.2024
Dean	KROUK E.A.	18.04.2024
Head of Centre for Educational Model Design	LEPESHKIN I.A.	26.04.2024

* Subject type:

Compulsory course
Elective course
Optional course

C
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