



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, 2023/2024 academic year

APPROVED
 09.02.2023
 Vice Rector
 ROSHCHIN S.Y.
 Signed with EDS

Length of Programme: 5 years 6 months
 Years of Study: 2021/2022 - 2026/2027
 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	
Вся образовательная программа				30,00	1 140	408	192	218	249	234	
Data Culture						2			2		
1	Independent Programming Test. Intermediate	C	отдел развития цифровых компетенций			2			2A		Online Course
Major				12,00	456	220	154	180	190	180	
Basic							102	124	132	126	
по информатике и программированию				13,00	494	184	20	28	80	72	
1	Programming Techniques	C	Department of Applied Mathematics	3,00	114	48			24	24A	Foreign language
2	Operating Systems	C	Department of Applied Mathematics	7,00	266	112	20	28	36A	28A	
3	Programming Logic Integrated Circuits	C	Department of Computer Security	3,00	114	24			12	12A	
по компьютерной безопасности				8,00	304	124	30	30	32	32	
1	Machine Learning	C	кафедра информационной безопасности киберфизических систем	5,00	190	60	30	30A			Foreign language
2	Information Theory	C	Department of Computer Security	3,00	114	64			32	32A	
по математике				9,00	342	160	52	66	20	22	
1	English for Specific Purposes. IT and Cyber Security	C	School of Foreign Languages	3,00	114	56		14A	20	22A	Foreign language
2	Mathematical Statistics	C	Department of Computer Security	3,00	114	56	28A	28A			
3	Electronics and Circuit Engineering	C	School of Electronic Engineering	3,00	114	48	24	24A			
Elective Components				12,00	456	220	52	56	58	54	

1	Differential Equations	C	Department of Applied Mathematics	3,00	114	44	20	24A		
2	Methods of Data Analysis	C	Department of Applied Mathematics	3,00	114	48			24	24A
3	Assembly Language	C	Department of Applied Mathematics	3,00	114	64			34	30A
4	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			3	
Экзамены						2			3	
1	Independent English Exam	C	School of Foreign Languages			2			2A	Foreign language
ДОЦ				4,00	152	30			16	14
Дополнительные дисциплины ДОЦ				4,00	152	30			16	14
1	Economics	C	Department of Theoretical Economics	4,00	152	30			16	14A
Internship				4,00	152	2				2
Проектная				4,00	152	2				2
1	Проект	E		4,00	152	2				2A

Curriculum agreed:

Academic Supervisor LOS A.B. 02.02.2023

Dean KROUK E.A. 02.02.2023

Head of Centre for Educational Model Design LEPESHKIN I.A. 07.02.2023

* Subject type:

Compulsory course

C

Elective course

E

Optional course

O