



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  
 2 nd, 2023/2024 academic year

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

Length of Programme: 6 years  
 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	
<b>Degree Programme</b>				<b>60,00</b>	<b>2 442</b>	<b>1 116</b>	<b>224</b>	<b>234</b>	<b>330</b>	<b>328</b>	
<b>Data Culture</b>						<b>4</b>		<b>2</b>		<b>2</b>	
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	
<b>Major</b>				<b>45,00</b>	<b>1 710</b>	<b>804</b>	<b>148</b>	<b>154</b>	<b>254</b>	<b>248</b>	
<b>Core Professional Block (Major)</b>				<b>36,00</b>	<b>1 368</b>	<b>662</b>	<b>112</b>	<b>112</b>	<b>220</b>	<b>218</b>	
1	Algebra	C	Department of Computer Security	6,00	228	112	28	28A	28	28A	
2	History of Cryptography	C	Department of Computer Security	3,00	114	70			36	34A	
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	56			28	28A	
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			
<b>Elective Professional Block (Major)</b>				<b>9,00</b>	<b>342</b>	<b>142</b>	<b>36</b>	<b>42</b>	<b>34</b>	<b>30</b>	

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	
<b>Minor</b>				<b>10,00</b>	<b>380</b>	<b>152</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	
1	Minor	E		10,00	380	152	38	38A	38	38A	
<b>English</b>											
<b>Optional Courses</b>											
1	English	O		6,00	228	104	28	32	44A		Foreign language, Credits only to the cumulative rating
<b>General Courses</b>				<b>1,00</b>	<b>200</b>	<b>144</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	
<b>Optional General Courses</b>											
1	Elective courses	E									
<b>Core General Courses</b>				<b>1,00</b>	<b>200</b>	<b>144</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	
1	Physical Training	C	Department of Physical Training	1,00	200	144	36	36	36	36A	
<b>Internship</b>				<b>4,00</b>	<b>152</b>	<b>12</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>4</b>	
<b>Research Internship</b>						<b>4</b>		<b>2</b>		<b>2</b>	
1	Organizational and Legal Support for Information Security	C				2				2A	
2	Basics of Information Security	C				2		2A			
<b>Project Internship</b>				<b>4,00</b>	<b>152</b>	<b>8</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
1	Research or Applied Project	C		4,00	152	8	2	2	2	2A	

**Curriculum agreed:**

Academic Supervisor	LOS A.B.	30.01.2023
Dean	KROUK E.A.	30.01.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	08.02.2023

\* Subject type:

Compulsory course

C

Elective course

E

Optional course

O