



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.03.02 Applied Mathematics and Information Science

Educational Programme "Applied Mathematics and Information Science"

Implementing unit: Faculty of Informatics, Mathematics and Computer Sciences, HSE - Nizhny Novgorod

2 nd, 2023/2024 academic year

APPROVED

25.04.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2022/2023 - 2025/2026

Mode of Study: Full Time

Degree: Bachelor'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>890</b>	<b>182</b>	<b>186</b>	<b>295</b>	<b>225</b>	
<b>Data Culture</b>						<b>6</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	
3	Independent Programming Test. Advanced Level	C	отдел развития цифровых компетенций			2				2A	Online Course
<b>Major</b>				<b>39,00</b>	<b>1 482</b>	<b>586</b>	<b>126</b>	<b>126</b>	<b>198</b>	<b>136</b>	
<b>Core Professional Block (Major)</b>				<b>35,00</b>	<b>1 330</b>	<b>536</b>	<b>112</b>	<b>112</b>	<b>176</b>	<b>136</b>	
1	Algorithms and Data Structures	C	Department of Applied Mathematics and Information Science	4,00	152	56	28	28A			
2	Computer Architecture and Operating Systems	C		4,00	152	60			44	16A	
3	Differential equations	C	Department of Fundamental Mathematics	5,00	190	84			44	40A	Foreign language
4	Calculus 2	C	Department of Applied Mathematics and Information Science	4,00	152	56	28	28A			
5	Probability Theory and Mathematical Statistics	C	Department of Applied Mathematics and Information Science	8,00	304	140	28	28A	44	40A	
6	Programming technologies (C++ programming language)	C	Joint Department with MERA Group	6,00	228	100	28A	28	44A		
7	Python Programming Language	C	Joint Department with MERA Group	4,00	152	40				40A	Online Course

	<b>Elective Professional Block (Major)</b>			<b>4,00</b>	<b>152</b>	<b>50</b>	<b>14</b>	<b>14</b>	<b>22</b>		
1	Research Seminar	C	Department of Applied Mathematics and Information Science	4,00	152	50	14	14	22A		
	<b>Minor</b>			<b>10,00</b>	<b>380</b>	<b>122</b>	<b>28</b>	<b>28</b>	<b>33</b>	<b>33</b>	
1	Minor	E		10,00	380	122	28	28A	33	33A	
	<b>English</b>										
	<b>Optional Courses</b>										
1	Английский язык	O		6,00	228	104	28	32	44A		Foreign language, Credits only to the cumulative rating
	<b>General Courses</b>			<b>5,00</b>	<b>352</b>	<b>174</b>	<b>28</b>	<b>32</b>	<b>64</b>	<b>50</b>	
	<b>Optional General Courses</b>			<b>4,00</b>	<b>152</b>	<b>30</b>			<b>20</b>	<b>10</b>	
1	Legal Literacy	C	департамент права цифровых технологий и биоправа	4,00	152	30			20	10A	Online Course
	<b>Core General Courses</b>			<b>1,00</b>	<b>200</b>	<b>144</b>	<b>28</b>	<b>32</b>	<b>44</b>	<b>40</b>	
1	Physical Training	C	Department of Physical Training	1,00	200	144	28	32A	44	40A	
	<b>Internship</b>			<b>6,00</b>	<b>228</b>	<b>2</b>				<b>4</b>	
	<b>Project Internship</b>			<b>5,00</b>	<b>190</b>					<b>2</b>	
1	Term Paper	C		5,00	190	2				2A	
	<b>Professional Internship</b>			<b>1,00</b>	<b>38</b>	<b>2</b>				<b>2</b>	
1	Educational Internship	C		1,00	38	2				2A	

**Curriculum agreed:**

Academic Supervisor	KOLDANOV P.A.	29.03.2023
Dean	ASEEVA N.V.	04.04.2023
Deputy Director	FOMENKOV D.A.	05.04.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	25.04.2023

\* Subject type:

Compulsory course  
Elective course  
Optional course

C  
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