



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

1 st, 2021/2022 academic year

APPROVED

01.06.2021

Vice Rector

ROSHCHIN Y.S.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2021/2022 - 2024/2025

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</b>	<b>2 784</b>	<b>1 037</b>	<b>192</b>	<b>158</b>	<b>265</b>	<b>294</b>	
<b>Data Culture</b>						<b>3</b>				<b>3</b>	
1	Independent Digital Literacy Test	C	Center for Support and Monitoring of Degree Programs			3				3A	
<b>Major</b>				<b>48</b>	<b>1 824</b>	<b>688</b>	<b>146</b>	<b>112</b>	<b>221</b>	<b>209</b>	
<b>Core Professional Block (Major)</b>				<b>39</b>	<b>1 482</b>	<b>620</b>	<b>118</b>	<b>112</b>	<b>201</b>	<b>189</b>	
<b>Subject Areas</b>				<b>39</b>	<b>1 482</b>	<b>620</b>	<b>118</b>	<b>112</b>	<b>201</b>	<b>189</b>	
<b>Computer Architecture and Operating Systems</b>				<b>5</b>	<b>190</b>	<b>68</b>			<b>44</b>	<b>24</b>	
1	Operating Systems	C	Joint Department with MERA Group	5	190	68			44	24A	
<b>Discrete Mathematics</b>				<b>8</b>	<b>304</b>	<b>132</b>	<b>28</b>	<b>32</b>	<b>33</b>	<b>39</b>	
1	Discrete Mathematics	C	Department of Applied Mathematics and Information Science	8	304	132	28	32A	33	39A	
<b>Linear Algebra and Geometry</b>				<b>10</b>	<b>380</b>	<b>136</b>	<b>28</b>	<b>32</b>	<b>36</b>	<b>40</b>	
1	Algebra	C	Department of Fundamental Mathematics	4	152	40				40A	
2	Linear Algebra and Geometry	C	Department of Mathematics	6	228	96	28A	32	36A		
<b>Mathematical Analysis</b>				<b>8</b>	<b>304</b>	<b>152</b>	<b>34</b>	<b>24</b>	<b>44</b>	<b>50</b>	
1	Calculus 1	C	Department of Applied Mathematics and Information Science	8	304	152	34	24A	44	50A	
<b>Programming</b>				<b>8</b>	<b>304</b>	<b>132</b>	<b>28</b>	<b>24</b>	<b>44</b>	<b>36</b>	
1	Introduction to Programming	C	Joint Department with MERA Group	8	304	132	28	24A	44	36A	

<b>Elective Professional Block (Major)</b>				<b>9</b>	<b>342</b>	<b>68</b>	<b>28</b>		<b>20</b>	<b>20</b>	
1	Research seminar	C	Department of Applied Mathematics and Information Science	4	152	40			20	20A	
2	Research Seminar"Web-Programming"	C	Department of Applied Mathematics and Information Science	5	190	28	28A				
<b>English</b>					<b>304</b>	<b>130</b>				<b>2</b>	
<b>Optional Courses</b>					<b>304</b>	<b>128</b>					
1	English	O		8	304	128	20	28A	40	40A	Foreign language, Credits only to the cumulative rating
<b>Examinations</b>						<b>2</b>				<b>2</b>	
1	English Language Integrative Exam	C	Department of Applied Linguistics and Foreign Languages			2				2A	
<b>General Courses</b>				<b>5</b>	<b>390</b>	<b>176</b>	<b>46</b>	<b>46</b>	<b>44</b>	<b>40</b>	
<b>Optional General Courses</b>				<b>4</b>	<b>152</b>	<b>30</b>	<b>16</b>	<b>14</b>			
1	Economics	C	Department of Theoretical Economics	4	152	30	16	14A			Online Course
<b>Core General Courses</b>				<b>1</b>	<b>238</b>	<b>146</b>	<b>30</b>	<b>32</b>	<b>44</b>	<b>40</b>	
1	Safe Living Basics	C	Department of General and Strategic Management	1	38	2	2A				Online Course
2	Physical Training	C	Department of Physical Training		200	144	28	32	44	40A	
<b>Internship</b>				<b>7</b>	<b>266</b>	<b>40</b>				<b>40</b>	
<b>Professional Internship</b>				<b>7</b>	<b>266</b>	<b>40</b>				<b>40</b>	
1	Computer Workshop on Numerical Methods	C	Department of Applied Mathematics and Information Science	7	266	40				40A	

**Curriculum agreed:**

Academic Supervisor	KOLDANOV P.A.	24.05.2021
Dean	ASEEVA N.V.	24.05.2021
Deputy Director	FOMENKOV D.A.	24.05.2021
Head of Degree Programmes Development Office	MAMONOVA M.A.	31.05.2021

\* Subject type:

Compulsory course  
 Elective course  
 Optional course

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