



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 03.03.02 Physics

Educational Programme "Physics"

Specializations: "Condensed Matter Physics", "Low Temperature Physics", "Nanoelectronics and Photonics", "Quantum Optics and Nanophotonics", "Quantum Technologies", "Space Physics", "The Teaching of Modern Physics", "Theoretical Physics"

Implementing unit: Faculty of Physics, HSE - Moscow

1 st, 2024/2025 academic year

APPROVED

26.04.2024

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2024/2025 - 2027/2028

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>2 480</b>	<b>1 286</b>	<b>243</b>	<b>321</b>	<b>324</b>	<b>398</b>	
<b>Data Culture</b>						<b>2</b>			<b>2</b>		
1	Independent Digital Literacy Test	C	отдел развития цифровых компетенций			2			2A		Online Course
<b>Major</b>				<b>43,00</b>	<b>1 634</b>	<b>838</b>	<b>178</b>	<b>170</b>	<b>234</b>	<b>256</b>	
<b>Core Professional Block (Major)</b>				<b>43,00</b>	<b>1 634</b>	<b>838</b>	<b>178</b>	<b>170</b>	<b>234</b>	<b>256</b>	
1	Analytical Mechanics	C	Faculty of Physics	4,00	152	106			42	64A	
2	Analytical Approximation Methods	C	Faculty of Physics	3,00	114	106			52	54A	
3	Differential Equations	C	Faculty of Mathematics	4,00	152	84			42	42A	
4	Computer Science	C	Faculty of Physics	3,00	114	32	32A				
5	Linear Algebra	C	Faculty of Mathematics	4,00	152	64	32	32A			
6	Calculus	C	Faculty of Mathematics	10,00	380	152	32	32A	44	44A	
7	Mechanics	C	Faculty of Physics	4,00	152	86	42	44A			
8	Introduction into Python	C	Faculty of Physics	3,00	114	22		22A			
9	Electricity and Magnetism	C	Faculty of Physics	4,00	152	106			54	52A	
10	Elements of Mathematical Methods of Physics	C	Faculty of Physics	4,00	152	80	40	40A			
<b>English</b>						<b>2</b>				<b>2</b>	
<b>Optional Courses</b>											
1	English Language	O		8,00	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	School of Foreign Languages			2				2A	Foreign language

	<b>General Courses</b>			<b>7,00</b>	<b>466</b>	<b>264</b>	<b>49</b>	<b>79</b>	<b>68</b>	<b>68</b>	
	<b>Optional General Courses</b>			<b>6,00</b>	<b>228</b>	<b>102</b>	<b>12</b>	<b>42</b>	<b>24</b>	<b>24</b>	
1	Russian History	C	School of History	4,00	152	76	12	16A	24	24A	Online Course
2	Foundations of Russian Statehood	C	School of History	2,00	76	26		26A			Online Course
	<b>Core General Courses</b>			<b>1,00</b>	<b>238</b>	<b>162</b>	<b>37</b>	<b>37</b>	<b>44</b>	<b>44</b>	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1,00	38	18	9	9A			Online Course
2	Physical Training	C	Department of Physical Training		200	144	28	28	44	44A	
	<b>Internship</b>			<b>10,00</b>	<b>380</b>	<b>180</b>	<b>16</b>	<b>72</b>	<b>20</b>	<b>72</b>	
	<b>Research Internship</b>			<b>10,00</b>	<b>380</b>	<b>180</b>	<b>16</b>	<b>72</b>	<b>20</b>	<b>72</b>	
1	Laboratory Work on Mechanics	C		4,00	152	72		72A			
2	Laboratory Work on Electricity and Magnetism	C		4,00	152	72				72A	
3	Educational Internship (Introductory Training)	C		2,00	76	36	16		20A		

**Curriculum agreed:**

Academic Supervisor	Kuntsevich A.Y.	22.04.2024
Dean	TRUNIN M.R.	22.04.2024
Head of Centre for Educational Model Design	LEPESHKIN I.A.	26.04.2024

\* Subject type:

Compulsory course  
 Elective course  
 Optional course

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