



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, 2022/2023 academic year

APPROVED  
 24.05.2022  
 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>2 480</b>	<b>1 159</b>	<b>240</b>	<b>274</b>	<b>282</b>	<b>363</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>47,00</b>	<b>1 786</b>	<b>818</b>	<b>176</b>	<b>146</b>	<b>246</b>	<b>250</b>	
<b>Core Professional Block (Major)</b>				<b>47,00</b>	<b>1 786</b>	<b>818</b>	<b>176</b>	<b>146</b>	<b>246</b>	<b>250</b>	
1	Analytical Mechanics	C	Faculty of Physics	5,00	190	104			40	64A	
2	Analytical Approximation Methods	C	Faculty of Physics	4,00	152	106			52	54A	
3	Differential Equations	C	Faculty of Mathematics	4,00	152	80			40	40A	
4	Computer Science	C	Faculty of Physics	3,00	114	32	32A				
5	Linear Algebra	C	Faculty of Mathematics	4,00	152	60	30	30A			
6	Calculus	C	Faculty of Mathematics	10,00	380	144	32	32A	40	40A	
7	Mechanics	C	Faculty of Physics	5,00	190	86	42	44A			
8	Introduction into Python	C	Faculty of Physics	3,00	114	22			22A		Online Course
9	Electricity and Magnetism	C	Faculty of Physics	5,00	190	104			52	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>5,00</b>	<b>390</b>	<b>192</b>	<b>64</b>	<b>56</b>	<b>36</b>	<b>36</b>	
<b>Optional General Courses</b>				<b>4,00</b>	<b>152</b>	<b>30</b>	<b>10</b>	<b>20</b>			
1	ДОЦ по выбору студента	E		4,00	152	30	10	20A			
<b>Core General Courses</b>				<b>1,00</b>	<b>238</b>	<b>162</b>	<b>54</b>	<b>36</b>	<b>36</b>	<b>36</b>	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1,00	38	18	18A				Online Course
2	Physical Training	C	Department of Physical Training		200	144	36	36	36	36A	
<b>Internship</b>				<b>8,00</b>	<b>304</b>	<b>144</b>		<b>72</b>		<b>72</b>	
<b>Research Internship</b>				<b>8,00</b>	<b>304</b>	<b>144</b>		<b>72</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	

**Curriculum agreed:**

Academic Supervisor

LEVCHENKO A.A.

19.05.2022

Dean

TRUNIN M.R.

19.05.2022

Head of Degree Programmes  
Development Office

MAMONOVA M.A.

20.05.2022

\* Subject type:

Compulsory course

C

Elective course

E

Optional course

O