



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics  
Educational Programme "Computational Biology and Bioinformatics"

Trajectories: "Bioinformatics"

Implementing unit: St. Petersburg School of Mathematics,  
Physics and Computer Science, HSE, HSE - Saint Petersburg  
2 nd, 2023/2024 academic year

APPROVED  
27.03.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2022/2023 - 2023/2024

Mode of Study: Full Time

Degree: Master's degree / MBA

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>2 280</b>	<b>234</b>	<b>98</b>	<b>130</b>	<b>2</b>	<b>4</b>	
<b>Bioinformatics (Applied track)</b>				<b>60,00</b>	<b>2 280</b>	<b>234</b>	<b>98</b>	<b>130</b>	<b>2</b>	<b>4</b>	
<b>Major</b>				<b>21,00</b>	<b>798</b>	<b>184</b>	<b>76</b>	<b>108</b>			
<b>Major (4 out of 4)</b>							<b>76</b>	<b>108</b>			
1	High-Level Modelling and Simulation of Digital Systems	C	Informatics Department	6,00	228	44	22	22A			
2	Deep Learning	C	Informatics Department	6,00	228	44	22	22A			
3	Structural Bioinformatics and Molecular Dynamics	C	Informatics Department	6,00	228	64	32A	32A			
4	Functional Programming	C	Informatics Department	3,00	114	32		32A			
<b>Final State Certification (FSC)</b>				<b>3,00</b>	<b>114</b>	<b>2</b>				<b>2</b>	
1	Final Qualification Paper	C		3,00	114	2				2A	
<b>Key Seminars</b>				<b>9,00</b>	<b>342</b>	<b>46</b>	<b>22</b>	<b>22</b>	<b>2</b>		
1	Research Seminar «Therapeutic Seminar»	C	Informatics Department	6,00	228	40	20	20A			
2	Mentor's Seminar	C	Informatics Department	3,00	114	6	2	2A	2A		
<b>Magolego</b>				<b>6,00</b>	<b>228</b>						
1	All-university Pool MAGOLEGO Courses	E		6,00	228						
<b>Internship</b>				<b>21,00</b>	<b>798</b>	<b>2</b>				<b>2</b>	
<b>Project Internship</b>				<b>21,00</b>	<b>798</b>	<b>2</b>				<b>2</b>	
1	Preparation of final qualification paper	C		21,00	798	2				2	

Curriculum agreed:

Academic Supervisor	YAKOVLEV P.A.	22.02.2023
Dean		22.02.2023
Deputy Director	KUZMIN P.V.	22.02.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	23.03.2023

\* Subject type:

Compulsory course

C

Elective course

E