



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
1 st, 2022/2023 academic year

APPROVED

20.05.2022

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	
Degree Programme				60,00	2 280	552	120	144	148	140	
Bioinformatics (Applied track)				60,00	2 280	552	120	144	148	140	
Major				45,00	1 710	512	116	140	144	112	
Major (8 out of 8)				45,00	1 710	512	116	140	144	112	
1	Unix and scripting languages	C	Informatics Department	6,00	228	72	44	28A			
2	Algorithms in Bioinformatics	C	Informatics Department	6,00	228	56			28A	28A	
3	Higher Mathematics and Mathematical Statistics	C	Informatics Department	6,00	228	72	44	28A			Online Course
4	Machine Learning	C	Informatics Department	6,00	228	56		28	28A		
5	Optimization Methods	C	Joint Department of Mathematical Methods in System Analysis with RAS Institute of System Analysis	6,00	228	60			32	28A	Online Course
6	Molecular Biology and Biotechnology	C	Informatics Department	6,00	228	84		28	56A		
7	Systemic Pharmacology	C	Informatics Department	3,00	114	56				56A	
8	Efficient Algorithms	C	Informatics Department	6,00	228	56	28	28A			Online Course
Key Seminars				6,00	228	40	4	4	4	28	
1	Research Seminar "Journal Club"	C	Informatics Department	3,00	114	24				24A	
2	Mentor's Seminar	C	Informatics Department	3,00	114	16	4	4	4	4A	
Magolego				6,00	228						
1	Elective Courses from General University Set	E		6,00	228						
Internship				3,00	114						
Project Internship				3,00	114						

1	Project	C		3,00	114					
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Curriculum agreed:

Academic Supervisor	YAKOVLEV P.A.	18.05.2022
Dean	OMELCHENKO A.V.	18.05.2022
Deputy Director	KUZMIN P.V.	19.05.2022
Head of Degree Programmes Development Office	MAMONOVA M.A.	19.05.2022

* Subject type:

Compulsory course

C

Elective course

E