



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, 2024/2025 academic year

APPROVED

08.05.2024

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2024/2025 - 2025/2026

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	588	142	194	192	60	
Bioinformatics (Applied track)				60,00	2 280	588	142	194	192	60	
Major				51,00	1 938	562	136	188	186	52	
Major (8 out of 8) (48)				51,00	1 938	562	136	188	186	52	
1	Unix and scripting languages	C	Informatics Department	6,00	228	72	44	28A			
2	Higher Mathematics and Mathematical Statistics	C	Informatics Department	6,00	228	72	44A	28A			
3	Discrete mathematics and graph theory	C	Informatics Department	6,00	228	40	20	20A			
4	Machine Learning	C	Informatics Department	6,00	228	56		28	28A		
5	Optimization Methods	C	Informatics Department	6,00	228	60			40	20A	
6	Molecular Biology and Biotechnology	C	Informatics Department	6,00	228	112		56	56A		
7	Numerical Methods	C	Informatics Department	6,00	228	64			32	32A	
8	Efficient Algorithms	C	Informatics Department	9,00	342	86	28	28A	30A		
Key Seminars				3,00	114	24	6	6	6	6	
1	Mentor's Seminar	C	Informatics Department	3,00	114	24	6	6	6	6A	
Magolego				3,00	114						
1	All-university Pool MAGOLEGO Courses	E		3,00	114						
Internship				3,00	114	2				2	
Project Internship				3,00	114	2				2	
1	Project	C		3,00	114	2				2A	

Curriculum agreed:

Academic Supervisor	YAKOVLEV P.A.	27.04.2024
Dean		27.04.2024
Deputy Director	KUZMIN P.V.	27.04.2024
Head of Centre for Educational Model Design	LEPESHKIN I.A.	07.05.2024

* Subject type:

Compulsory course

C

Elective course

E