



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, 2023/2024 academic year

APPROVED
12.05.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2023/2024 - 2024/2025

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	560					
Bioinformatics (Applied track)				60,00	2 280	560	116	168	148	176	
Major							116	168	124	152	
Major (8 out of 8) (48)							116	168	124	152	
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	44A	28A			
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	80			40	40A	Online Course
6	Molecular Biology and Biotechnology	C	Informatics Department	9,00	342	112		56A	28	28A	
7	Systemic Pharmacology	C	Informatics Department	3,00	114	56				56A	
8	Efficient Algorithms	C	Informatics Department	6,00	228	56	28	28A			
Key Seminars				6,00	228	48			24	24	
1	Research Seminar "Journal Club"	C	Informatics Department	3,00	114	24			12	12A	
2	Mentor's Seminar	C	Informatics Department	3,00	114	24			12	12A	
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
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Curriculum agreed:

Academic Supervisor	YAKOVLEV P.A.	14.04.2023
Dean		14.04.2023
Deputy Director	KUZMIN P.V.	14.04.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	05.05.2023

* Subject type:

Compulsory course

C

Elective course

E