



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.03.02 Applied Mathematics and Information Science

Educational Programme "Applied Mathematics and Information Science"

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

APPROVED

06.04.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2020/2021 - 2023/2024

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	
	Degree Programme			60,00	2 280	322	102	112	100	8	
	Major			34,00	1 292	282	92	92	98		
	Core Professional Block (Major)			5,00	190	52	26	26			
	Subject Areas			5,00	190	52	26	26			
	Programming			5,00	190	52	26	26			
1	Web Searching and Ranging	C	Informatics Department	5,00	190	52	26A	26A			Foreign language
	Elective Professional Block (Major)			29,00	1 102	230	66	66	98		
	Elective courses (3 out of 6)			15,00	570	120	60	60			
1	Computational Geometry	E	Informatics Department	5,00	190	40	20	20A			
2	Computer Graphics	E	Informatics Department	5,00	190	40	20	20A			
3	Large-Scale Machine Learning	E	Informatics Department	5,00	190	40	20	20A			
4	Meta Computing	E	Informatics Department	5,00	190	40	20	20A			
5	Programming with Dependent Types	E	Informatics Department	5,00	190	40	20	20A			
6	Distributed Systems	E	Department of Big Data and Information Retrieval	5,00	190	56	28	28A			
	Elective courses (3 out of 6)			9,00	342	96			96		
1	Image Analysis	E	Informatics Department	3,00	114	32			32A		
2	Program Analysis	E	Informatics Department	3,00	114	32			32A		
3	Computer Vision	E	Informatics Department	3,00	114	32			32A		
4	Cryptographic Protocols	E	Informatics Department	3,00	114	32			32A		
5	Logical and Relationa Programming	E	Informatics Department	3,00	114	32			32A		
6	Natural Language Processing	E	Informatics Department	3,00	114	32			32A		
	Research seminar			4,00	152	8	4	4			

1	Research Seminar	C	Informatics Department	4,00	152	8	4	4A		
	Проектный семинар			1,00	38	6	2	2	2	
1	Project Seminar	C	Informatics Department	1,00	38	6	2	2	2A	
	English			1,00	38	2			2	
	Optional Courses									
1	Academic English Writing	O		2,00	76	54	16	18	20A	Foreign language, Credits only to the cumulative rating
	Examinations			1,00	38	2			2	
1	Project Proposal	C	Informatics Department	1,00	38	2			2A	Foreign language
	Final State Certification (FSC)			3,00	114	2				2
	Thesis Work			3,00	114	2				2
1	Presenting of Graduation Thesis	C		3,00	114	2				2A
	General Courses			4,00	152	30	10	20		
	Optional General Courses			4,00	152	30	10	20		
1	Legal Literacy	C	департамент права цифровых технологий и биоправа	4,00	152	30	10	20A		Online Course
	Internship			18,00	684	6				6
	Research Internship			12,00	456	4				4
1	Preparation of Graduation Thesis	C		9,00	342	2				2
2	Graduation Internship	C		3,00	114	2				2A
	Project Internship			6,00	228	2				2
1	Project	E		6,00	228	2				2A

Curriculum agreed:

Academic Supervisor	OMELCHENKO A.V.	03.04.2023
Dean		03.04.2023
Deputy Director	KUZMIN P.V.	03.04.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	06.04.2023

* Subject type:

Compulsory course
Elective course
Optional course

C
E
O