



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"

Specializations: "Choice and Decision Theory", "Data Analysis and Intelligent Systems", "Distributed Systems", "Industrial Software Engineering", "Machine Learning and Applications", "Mathematical and Computational Engineering in Science and Business", "Theoretical Computer Science"

Implementing unit: Faculty of Computer Science, HSE - Moscow
1 st, 2022/2023 academic year

APPROVED

18.05.2022

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2022/2023 - 2025/2026

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	2 480	1 030	364	404	576	497	
Data Culture											
1	Independent Digital Literacy Test	C	Center for Support and Monitoring of Degree Programs			3				3A	
Major				47,00	1 786	806	296	352	526	440	
Core Professional Block (Major)				47,00	1 786	806	296	352	526	440	
Алгебра				3,00	114	60				60	
1	Algebra	E	Department of Big Data and Information Retrieval	3,00	114	60				60A	
2	Algebra	E	Department of Big Data and Information Retrieval	3,00	114	60				60A	
Дискретная математика				6,00	228	104	28	32	44		
1	Discrete Mathematics	E	Department of Big Data and Information Retrieval	6,00	228	104	28	32A	44A		
2	Discrete Mathematics	E	Department of Big Data and Information Retrieval	6,00	228	104	28	32A	44A		
Линейная алгебра и геометрия				8,00	304	140	24	32	44	40	
1	Linear Algebra and Geometry	E	Department of Big Data and Information Retrieval	8,00	304	140	24	32A	44	40A	
2	Linear Algebra and Geometry	E	Department of Big Data and Information Retrieval	8,00	304	140	24	32A	44	40A	

	Математический анализ			10,00	380	176	44	48	44	40	
1	Calculus	E	Department of Big Data and Information Retrieval	10,00	380	176	44	48A	44	40A	
2	Calculus	E	Department of Big Data and Information Retrieval	10,00	380	176	44	48A	44	40A	
	Programming			17,00	646	282	104	128	174	160	
	-			17,00	646	284	52	64	88	80	
1	Algorithms and Data Structures	C	Joint Department with Yandex	9,00	342	144		64A		80A	
2	C++ Programming Language	C	Joint Department with Yandex	4,00	152	88			88A		
3	Python Programming Language	C	Joint Department with Yandex	4,00	152	52	52A				Online Course
	-			17,00	646	282	52	64	86	80	
1	Algorithms and Data Structures	C	Joint Department with Yandex	13,00	494	230		64A	86A	80A	
2	C++ Programming Language	C	Joint Department with Yandex	4,00	152	52	52A				
	-			3,00	114	44			44		
1	Number Theory	E	Department of Big Data and Information Retrieval	3,00	114	44			44A		
2	Number Theory (advanced course)	E	Department of Big Data and Information Retrieval	3,00	114	44			44A		
	English					2				2	
	Optional Courses										
1	English	O		8,00	304	128	20	28A	40	40A	Foreign language, Credits only to the cumulative rating
	Examinations					2				2	
1	English Language Integrative Exam	C	School of Foreign Languages			2				2A	Foreign language
	General Courses			9,00	542	222	68	52	50	52	
	Optional General Courses			8,00	304	60	14	16	14	16	
1	Legal Literacy	C	департамент права цифровых технологий и биоправа	4,00	152	30			20	10A	Online Course
2	Экономика	C	Department of Theoretical Economics	4,00	152	30	14	16A			Online Course
	Core General Courses			1,00	238	162	54	36	36	36	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1,00	38	18	18A				Online Course
2	Physical Training	C	Department of Physical Training		200	144	36	36	36	36A	
	Internship			4,00	152						
	Professional Internship			4,00	152						
1	Educational Internship	C		4,00	152						

Curriculum agreed:

Academic Supervisor SOKOLOV E.A. 13.05.2022

Dean ARZHANTSEV I.V. 13.05.2022

Head of Degree Programmes Development Office LEPESHKIN I.A. 18.05.2022

* Subject type:

Compulsory course

Elective course

Optional course

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