

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"

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

Faculty of Computer Science, HSE - Moscow

1 st, 2020/2021 academic year

APPROVED by

Vice Rector

ROSHCHIN Y.S.

Length of Programme: 4 years

Years of Study: 2020/2021 - 2023/2024

Mode of Study: Full Time

Degree: Bachelor's degree

Number of Students: 360

Number of Groups: 12

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	4 104	1 762	346	396	528	490	
	Major			48	3 648	1 416	258	320	438	400	
	Core Professional Block (Major)			48	3 648	1 416	258	320	438	400	
	Subject Areas			48	3 648	1 416	258	320	438	400	
	Algorithms and Data Structures			9	684	288		128		160	
	Алгоритмы и структуры данных				684	288		128		160	
1	Algorithms and Data Structures	C	Joint Department with Yandex	9	342	144		64A		80A	
2	Algorithms and Data Structures	C	Joint Department with Yandex	9	342	144		64A		80A	
	Discrete Mathematics			7	532	208	56	64	88		
	Дискретная математика				532	208	56	64	88		
1	Discrete Mathematics	C	Department of Big Data and Information Retrieval	7	266	104	28	32A	44A		
2	Discrete Mathematics (Advanced Course)	C	Department of Big Data and Information Retrieval	7	266	104	28	32A	44A		
	Linear Algebra and Geometry			13	988	368	56	64	88	160	
	Алгебра				228	80				80	
1	Algebra	C	Department of Big Data and Information Retrieval	3	114	40				40A	
2	Algebra (Advanced Course)	C	Department of Big Data and Information Retrieval	3	114	40				40A	
	Линейная алгебра и геометрия				760	288	56	64	88	80	

1	Linear Algebra and Geometry	C	Department of Big Data and Information Retrieval	10	380	144	28	32A	44	40A	
2	Linear Algebra and Geometry (Advanced Course)	C	Department of Big Data and Information Retrieval	10	380	144	28	32A	44	40A	
Mathematical Analysis				10	760	288	56	64	88	80	
Математический анализ					760	288	56	64	88	80	
1	Calculus	C	Department of Big Data and Information Retrieval	10	380	144	28	32A	44	40A	
2	Calculus (Advanced Course)	C	Department of Big Data and Information Retrieval	10	380	144	28	32A	44	40A	
Programming				9	684	264	90		174		
Основы и методология программирования					684	264	90		174		
1	Introduction to Programming	C	Joint Department with Yandex	9	342	126	38A		88A		Online Course
2	Introduction to Programming	C	Department of Big Data and Information Retrieval	9	342	138	52A		86A		
English						146	24	32	44	44	
Optional Courses						144	24	32	44	44	
1	English	O		8		144	24	32A	44	44A	Foreign language, Credits only to the cumulative rating
Examinations						2					
1	English Language Integrative Exam	C	School of Foreign Languages			2					
General Courses				9	342	200	64	44	46	46	
Optional General Courses				8	304	38	10	8	10	10	
1	Introduction to Law	C	департамент теории права и межотраслевых юридических дисциплин	4	152	20			10	10A	Online Course
2	Economics	C	Department of Theoretical Economics	4	152	18	10	8A			Online Course
Core General Courses				1	38	162	54	36	36	36	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1	38	18	18A				Online Course
2	Physical Training	C	Department of Physical Training			144	36	36	36	36A	
Internship				3	114						
Professional Internship				3	114						
1	Educational Internship	C		3	114						

Academic Supervisor

SOKOLOV E.A.

Dean

ARZHANTSEV I.V.

Head of Degree Programmes
Development Office

MAMONOVA M.A.

* Subject type:

Compulsory course

Elective course

Optional course

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