



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.03.02 Applied Mathematics and Information Science

Educational Programme "Computing and Data Science"

Specializations: "Industrial Programming", "Machine Learning and Applications", "Software Engineering"

Implementing unit: Faculty of Computer Science, HSE - Moscow
1 st, 2024/2025 academic year

APPROVED

27.05.2024

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2024/2025 - 2027/2028

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	988	199	259	270	260	
Data Culture				3,00	114	42			42		
1	Python as a Tool for Data Collection and Analysis	C	Department of Big Data and Information Retrieval	3,00	114	40			40A		
2	Independent Digital Literacy Test	C	отдел развития цифровых компетенций			2			2A		Online Course
Major				44,00	1 672	650	140	160	160	190	
Core Professional Block (Major)				44,00	1 672	650	140	160	160	190	
1	Algorithms and Data Structures	C	Department of Big Data and Information Retrieval	9,00	342	144		64A		80A	
2	Discrete Mathematics	C	Department of Big Data and Information Retrieval	4,00	152	60	28	32A			
3	Modern Software Engineering Practices	C	Department of Big Data and Information Retrieval	3,00	114	30				30A	
4	Linear Algebra	C	Department of Big Data and Information Retrieval	10,00	380	140	28	32A	40	40A	
5	Calculus	C	Department of Big Data and Information Retrieval	10,00	380	140	28	32A	40	40A	
6	Python Programming	C	Department of Big Data and Information Retrieval	4,00	152	56	56A				Online Course
7	C++ Programming	C	Department of Big Data and Information Retrieval	4,00	152	80			80A		
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			10,00	580	294	59	99	68	68	
	Optional General Courses			9,00	342	132	22	62	24	24	
1	Russian History	C	School of History	4,00	152	76	12	16A	24	24A	Online Course
2	Foundations of Russian Statehood	C	School of History	2,00	76	26		26A			Online Course
3	Legal Literacy	C	департамент теории права и сравнительного правоведения	3,00	114	30	10	20A			Online Course
	Core General Courses			1,00	238	162	37	37	44	44	
1	Safe Living Basics	C	центр поддержки студенческих инициатив	1,00	38	18	9	9A			Online Course
2	Physical Training	C	Department of Physical Training		200	144	28	28	44	44A	
	Internship			3,00	114						
	Professional Internship			3,00	114						
1	Educational Internship	C		3,00	114						

Curriculum agreed:

Academic Supervisor	PROMYSLOV V.V.	14.05.2024
Dean	ARZHANTSEV I.V.	15.05.2024
Head of Centre for Educational Model Design	LEPESHKIN I.A.	22.05.2024

* Subject type:

Compulsory course
 Elective course
 Optional course

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