



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
2 nd, 2025/2026 academic year

APPROVED

21.04.2025

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	Period of execution	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
								1	2	3	4	
	Degree Programme				60,00	2 442	1 060	246	202	310	302	
	Data Culture						6		2		4	
1	External Examinations on Digital Skills. Entry-level	C	отдел развития цифровых компетенций				2		2A			
2	External Examinations on Digital Skills. Intermediate Level	C	отдел развития цифровых компетенций				2				2A	
3	Independent Programming Test. Advanced Level	C	отдел развития цифровых компетенций				2				2A	Online Course
	Major				44,00	1 672	600	140	96	188	176	
	Core Professional Block (Major)				44,00	1 672	600	140	96	188	176	
1	Algebra	C	Department of Big Data and Information Retrieval		6,00	228	60	28	32A			
2	Algorithms and Data Structures 2	C	Department of Big Data and Information Retrieval		4,00	152	56	56A				
3	Computer Architecture and Operating Systems	C	Department of Big Data and Information Retrieval		8,00	304	120			60	60A	
4	Mathematical Statistics	C	Department of Big Data and Information Retrieval		5,00	190	80			44	36A	
5	Calculus 2	C	Department of Big Data and Information Retrieval		9,00	342	144	28	32A	44	40A	
6	Machine Learning 1	C	Department of Big Data and Information Retrieval		7,00	266	80			40	40A	
7	Probability Theory	C	Department of Big Data and Information Retrieval		5,00	190	60	28	32A			Online Course
	Minor				10,00	380	304	76	76	76	76	
1	Minor	E			10,00	380	304	76	76A	76	76A	
	General Courses				1,00	200	144	28	28	44	44	
	Core General Courses				1,00	200	144	28	28	44	44	
1	Physical Training	C	Department of Physical Training		1,00	200	144	28	28	44	44A	

	Internship				5,00	190	4	2			2	
	Project Internship				5,00	190	2				2	
1	Course Project 1	C		F	5,00	190	2				2A	
	Professional Internship						2	2				
1	Educational Internship	C		F			2	2A				
	Language and Communication						2			2		
	Optional Courses											
1	English	O			6,00	228	100	32	28	40A		Foreign language, Credits only to the cumulative rating
	Examinations						2			2		
1	Independent Russian Exam	C	School of Foreign Languages				2			2A		

Curriculum agreed:

Academic Supervisor	Promyslov V.V.	06.03.2025
Dean	ARZHANTSEV I.V.	06.03.2025
Head of Centre for Educational Model Design	LEPESHKIN I.A.	18.04.2025

* Subject type:

Compulsory course	C
Elective course	E
Optional course	O

Period of execution:

Fixed	F
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