



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"

Implementing unit: Faculty of Computer Science, HSE - Moscow
1 st, 2025/2026 academic year

APPROVED

21.04.2025

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2025/2026 - 2028/2029

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	2 480	958	215	213	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				47,00	1 786	650	140	160	160	190	
	Core Professional Block (Major)				47,00	1 786	650	140	160	160	190	
1	Algorithms and Data Structures	C	Department of Big Data and Information Retrieval		10,00	380	144		64A		80A	
2	Discrete Mathematics	C	Department of Big Data and Information Retrieval		6,00	228	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		
	General Courses				7,00	466	264	75	53	68	68	
	Optional General Courses				6,00	228	102	38	16	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
	Core General Courses				1,00	238	162	37	37	44	44	

1	Safe Living Basics	C	Проектно-учебная лаборатория «Бизнес-инкубатор Высшей школы экономики»		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						
	Fixed				3,00	114						
1	Academic Internship	C		F	3,00	114						
	Language and Communication						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

Curriculum agreed:

Academic Supervisor	Промыслов В.В.	15.04.2025
Dean	ARZHANTSEV I.V.	15.04.2025
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