



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: "Machine Learning and Applications", "Software Engineering"

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

APPROVED

22.07.2022

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	2 386	917	208	212	259	248	
Data Culture				3,00	114	43			43		
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	Center for Support and Monitoring of Degree Programs			3			3A		
Major				44,00	1 672	650	140	160	160	200	
Core Professional Block (Major)				44,00	1 672	650	140	160	160	200	
Subject Areas				44,00	1 672	650	140	160	160	200	
Algebra and Geometry				9,00	342	140	28	32	40	40	
1	Linear Algebra	C	Department of Big Data and Information Retrieval	9,00	342	140	28	32A	40	40A	
по алгоритмам и структурам данных				9,00	342	144		64		80	
1	Algorithms and Data Structures	C	Department of Big Data and Information Retrieval	9,00	342	144		64A		80A	
Discrete Mathematics				4,00	152	60	28	32			
1	Discrete Mathematics	C	Department of Big Data and Information Retrieval	4,00	152	60	28	32A			
по математическому анализу				9,00	342	140	28	32	40	40	
1	Calculus	C	Department of Big Data and Information Retrieval	9,00	342	140	28	32A	40	40A	
Programming				13,00	494	166	56		80	40	
1	Modern Software Engineering Practices	C	Department of Big Data and Information Retrieval	3,00	114	30				30A	

2	165	C	Department of Big Data and Information Retrieval	4,00	152	56	56A				Online Course
3	C++ Programming	C	Department of Big Data and Information Retrieval	6,00	228	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	486	222	68	52	56	46	
Optional General Courses				8,00	304	60	14	16	20	10	
1	Legal Literacy	C	департамент права цифровых технологий и биоправа	4,00	152	30			20	10A	Online Course
2	Economics	C	Department of Theoretical Economics	4,00	152	30	14	16A			Online Course
Core General Courses				2,00	182	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	1,00	144	144	36	36	36	36A	
Internship				3,00	114						
Professional Internship				3,00	114						
1	Educational Internship	C		3,00	114						

Curriculum agreed:

Academic Supervisor	PROMYSLOV V.V.	20.07.2022
Dean	ARZHANTSEV I.V.	20.07.2022
Head of Degree Programmes Development Office	LEPESHKIN I.A.	20.07.2022

* Subject type:

Compulsory course

C

Elective course

E

Optional course

O