



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics

Educational Programme "Data Science"

Trajectories: "Artificial Intelligence and Data Analysis", "Artificial Intelligence and Information Transmission (AIIT)"

Implementing unit: Faculty of Computer Science, HSE - Moscow
2 nd, 2023/2024 academic year

APPROVED

05.04.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2022/2023 - 2023/2024

Mode of Study: Full Time

Degree: Master's degree / MBA

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	2 280	298	262	296	4	4	
Artificial Intelligence and Data Analysis (General track)				60,00	2 280	302	146	148	4	4	
Major				30,00	1 140	246	124	122			
Elective courses 2 year				24,00	912	192	96	96			
1	How to Examine and Predict Time Series: Methods and Applications	E	Department of Data Analysis and Artificial Intelligence	6,00	228	54	28	26A			Foreign language
2	Big Data and Machine Learning in Healthcare	E	Department of Data Analysis and Artificial Intelligence	6,00	228	50	24	26A			Foreign language
3	Introduction to Knowledge Representation	E	Department of Data Analysis and Artificial Intelligence	6,00	228	40	20	20A			
4	Deep Learning	E	Department of Big Data and Information Retrieval	6,00	228	48	24	24A			Online Course, Foreign language
5	Recommender Systems	E	Department of Data Analysis and Artificial Intelligence	6,00	228	40	20	20A			Foreign language
Compulsory Disciplines 2 course				6,00	228	54	28	26			
1	Machine Learning and Data Mining	C	Department of Data Analysis and Artificial Intelligence	6,00	228	54	28	26A			Foreign language
Final State Certification (FSC)				3,00	114	2				2	
1	Final Qualification Paper	C		3,00	114	2				2A	
Key Seminars				6,00	228	52	22	26	4		
1	Research Seminar "Number Theoretic and Algebraic Methods in Data Analysis"	C	Department of Data Analysis and Artificial Intelligence	3,00	114	36	16	20A			Foreign language
2	Mentor's Seminar	C	Department of Data Analysis and Artificial Intelligence	3,00	114	16	6	6	4A		Foreign language
Magolego				9,00	342						

1	All-university Pool MAGOLEGO Courses	E		9,00	342					
	Internship			12,00	456	2				2
	Research Internship			12,00	456	2				2
1	Preparation of Graduation Thesis	C		12,00	456	2				2
	Artificial Intelligence and Information Transmission (AIIT) (General track)			60,00	2 280	268	112	148	4	4
	Major			30,00	1 140	216	108	108		
	Elective courses 2 year			24,00	912	192	96	96		
1	How to Examine and Predict Time Series: Methods and Applications	E	Department of Data Analysis and Artificial Intelligence	6,00	228	54	28	26A		Foreign language
2	Big Data and Machine Learning in Healthcare	E	Department of Data Analysis and Artificial Intelligence	6,00	228	50	24	26A		Foreign language
3	Introduction to Knowledge Representation	E	Department of Data Analysis and Artificial Intelligence	6,00	228	40	20	20A		
4	Deep Learning	E	Department of Big Data and Information Retrieval	6,00	228	48	24	24A		Online Course, Foreign language
5	Recommender Systems	E	Department of Data Analysis and Artificial Intelligence	6,00	228	40	20	20A		Foreign language
	Compulsory Disciplines 2 course			6,00	228	24	12	12		
1	Predictive Modelling	C	Department of Data Analysis and Artificial Intelligence	6,00	228	24	12	12A		
	Final State Certification (FSC)			3,00	114	2				2
1	Final Qualification Paper	C		3,00	114	2				2A
	Key Seminars			6,00	228	48	4	40	4	
1	Research Seminar "Artificial Intelligence and Information Transmission"	C	Department of Complex Systems Modelling Technologies	3,00	114	36		36A		
2	Mentor's Seminar	C	Department of Complex Systems Modelling Technologies	3,00	114	12	4	4	4A	
	Magolego			9,00	342					
1	All-university Pool MAGOLEGO Courses	E		9,00	342					
	Internship			12,00	456	2				2
	Research Internship			12,00	456	2				2
1	Preparation of Graduation Thesis	C		12,00	456	2				2

Curriculum agreed:

Academic Supervisor	KUZNETSOV S.O.	28.03.2023
Dean	ARZHANTSEV I.V.	28.03.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	03.04.2023

* Subject type:
Compulsory course
Elective course

C
E