



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics

Educational Programme "Data Science for Construction,  
Architecture and Engineering"

Trajectories: "Data Science for Construction, Architecture and  
Engineering"

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

APPROVED

07.04.2025

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2024/2025 - 2025/2026

Mode of Study: Full Time

Degree: Master's degree / MBA

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	
	<b>Degree Programme</b>				<b>60,00</b>	<b>2 280</b>	<b>202</b>	<b>68</b>	<b>118</b>	<b>12</b>	<b>4</b>	
	<b>(General track)</b>				<b>60,00</b>	<b>2 280</b>	<b>202</b>	<b>68</b>	<b>118</b>	<b>12</b>	<b>4</b>	
	<b>Major</b>				<b>21,00</b>	<b>798</b>	<b>160</b>	<b>54</b>	<b>106</b>			
	<b>The basic part</b>				<b>18,00</b>	<b>684</b>	<b>132</b>	<b>54</b>	<b>78</b>			
1	Analysis Spatial Data	C	Department of Big Data and Information Retrieval		6,00	228	32	4	28A			
2	Generative Models	C	Department of Big Data and Information Retrieval		6,00	228	44	22	22A			
3	Time Series Modeling and Anomaly Search	C	Department of Big Data and Information Retrieval		3,00	114	28		28A			
4	Operation of Machine Learning Models	C	Department of Big Data and Information Retrieval		3,00	114	28	28A				
	<b>Elective Courses. 2 year</b>				<b>3,00</b>	<b>114</b>	<b>28</b>		<b>28</b>			
1	Deep Learning for Natural Language Processing	E	Department of Big Data and Information Retrieval		3,00	114	28		28A			
2	Computer Vision	E	Department of Big Data and Information Retrieval		3,00	114	28		28A			
	<b>Final State Certification (FSC)</b>				<b>3,00</b>	<b>114</b>	<b>2</b>				<b>2</b>	
1	Final Qualification Paper	C			3,00	114	2				2A	
	<b>Key Seminars</b>				<b>9,00</b>	<b>342</b>	<b>36</b>	<b>12</b>	<b>12</b>	<b>12</b>		
1	Mentor's Seminar "Data Science for Construction, Architecture and Engineering"	C	Department of Big Data and Information Retrieval		9,00	342	36	12	12	12A		Online Course
	<b>Magolego</b>				<b>9,00</b>	<b>342</b>						
1	All-university Pool MAGOLEGO Courses	E			9,00	342						
	<b>Internship</b>				<b>18,00</b>	<b>684</b>	<b>4</b>	<b>2</b>			<b>2</b>	
	<b>Research Internship</b>				<b>15,00</b>	<b>570</b>	<b>2</b>				<b>2</b>	
1	Graduation Thesis	C			15,00	570	2				2A	
	<b>Professional Internship</b>				<b>3,00</b>	<b>114</b>	<b>2</b>	<b>2</b>				

1	Work Experience Internship (Research)	C		F	3,00	114	2	2A				
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**Curriculum agreed:**

Academic Supervisor	Горденко М.К.	25.02.2025
Dean	ARZHANTSEV I.V.	25.02.2025
Head of Centre for Educational Model Design	LEPESHKIN I.A.	07.04.2025

* Subject type:	
Compulsory course	C
Elective course	E

Period of execution:	
Fixed	F