National Research University Higher School of Economics (HSE)

Basic Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics
Educational Programme "Applied Artificial Intelligence Models"
Trajectories: "Applied Artificial Intelligence Models"
Implementing unit: Tikhonov Moscow Institute of Electronics and Mathematics, HSE - Moscow

APPROVED
01.06.2023
Vice Rector
ROSHCHIN S.Y.
Signed with EDS

Years of Study: 2023/2024 - 2024/2025
Length of Programme: 2 years
Mode of Study: Full Time
Degree: Master’s degree / MBA

Block Code	Course	Subject type	Credits	Credits by Years		Planned Educational Programme Development Results
				1	2	
	Degree Programme		120,00	60,00	60,00	
	Applied Artificial Intelligence Models (Applied track)		120,00	60,00	60,00	
	Key Seminars		16,00	10,00	6,00	
1	Applied Artificial Intelligence Models	C	16,00	10,00	6,00	GPC-4.AMI, UC-1, UC-2, UC-3, UC-4, UC-5, UC-6
	Internship		26,00	5,00	21,00	
	Project Internship		8,00	5,00	3,00	
1	Project	C	8,00	5,00	3,00	PC-1, PC-2, PC-3, PC-4, PC-5, PC-6
	Professional Internship		9,00		9,00	
1	Work Experience Internship	C	9,00		9,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI, PC-1, PC-2, PC-3, PC-4, PC-5, PC-6, UC-1, UC-2, UC-3, UC-4, UC-5, UC-6
	Research Internship		9,00		9,00	
1	Graduation Thesis	C	9,00		9,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI, PC-1, PC-2, PC-3, PC-4, PC-5, PC-6, UC-1, UC-2, UC-3, UC-4, UC-5, UC-6
	Major		66,00	42,00	24,00	
	Обязательные дисциплины программы		54,00	36,00	18,00	
1	Data Analysis	C	6,00	6,00		PC-1, PC-4
2	Machine Learning	C	6,00	6,00		PC-1, PC-4, PC-6
3	Advanced Programming in C/C++	C	6,00	6,00		PC-2, PC-3, PC-5

4	Neural Networks and Deep Learning	C	6,00	6,00		PC-1, PC-6
5	Information Retrieval	C	6,00	6,00		PC-5
6	Industrial Programming in Python	C	6,00	6,00		PC-2
7	Speech and Natural Language Processing	C	6,00		6,00	PC-5, PC-6
8	Modern data storage technologies	C	6,00		6,00	PC-1, PC-3, PC-4, PC-6
9	Advanced Programming in Python	C	6,00		6,00	PC-2
	Дисциплины по выбору студента		12,00	6,00	6,00	
1	Stochastic Methods for Engineering Applications	E	6,00	6,00		PC-1, PC-4
2	Basics of cybersecurity	E	6,00		6,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI
3	Introduction to Deep Learning in NLP (offered in a foreign language)	E	6,00		6,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI
	Magolego		9,00	3,00	6,00	
1	All-university Pool MAGOLEGO Courses	E	9,00	3,00	6,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI
	Final State Certification (FSC)		3,00		3,00	
1	Final Qualification Paper	C	3,00		3,00	GPC-1.AMI, GPC-2.AMI, GPC-3.AMI, GPC-4.AMI, PC-1, PC-2, PC-3, PC-4, PC-5, PC-6, UC-1, UC-2, UC-3, UC-4, UC-5, UC-6

Curriculum agreed:

Academic Supervisor	SLASTNIKOV S.A.	29.05.2023
Dean	KROUK E.A.	30.05.2023
Head of Centre for Educational Model Design	LEPESHKIN I.A.	31.05.2023

* Subject type:

Compulsory course	C
Elective course	E