



National Research University Higher School of Economics (HSE)

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

1 st, 2025/2026 academic year

APPROVED

20.05.2025

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2025/2026 - 2026/2027

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 | |
| | Degree Programme | | | | 60,00 | 2 280 | 510 | 118 | 128 | 132 | 132 | |
| | Applied Artificial Intelligence Models (Applied track) | | | | 60,00 | 2 280 | 510 | 118 | 128 | 132 | 132 | |
| | Major | | | | 42,00 | 1 596 | 420 | 108 | 112 | 100 | 100 | |
| | Disciplines of the Degree Programme | | | | 36,00 | 1 368 | 340 | 108 | 112 | 60 | 60 | |
| 1 | Algorithms and Data Structures | C | Department of Applied Mathematics | | 6,00 | 228 | 60 | | | 32 | 28A | |
| 2 | Machine Learning | C | Department of Applied Mathematics | | 6,00 | 228 | 60 | 28 | 32A | | | |
| 3 | Industrial Programming in Python | C | Department of Applied Mathematics | | 6,00 | 228 | 60 | 32 | 28A | | | |
| 4 | Machine Learning Operations | C | Department of Applied Mathematics | | 6,00 | 228 | 60 | | | 28 | 32A | |
| 5 | Modern Natural Language Processing and Large Language Models | C | Department of Applied Mathematics | | 6,00 | 228 | 40 | 20 | 20A | | | |
| 6 | Advanced Programming in C++ | C | Department of Applied Mathematics | | 6,00 | 228 | 60 | 28 | 32A | | | |
| | Elective Courses | | | | 6,00 | 228 | 80 | | | 40 | 40 | |
| 1 | Information Retrieval | E | Department of Applied Mathematics | | 6,00 | 228 | 60 | | | 32 | 28A | |
| 2 | Stochastic Methods for Engineering Applications | E | Department of Applied Mathematics | | 6,00 | 228 | 80 | | | 40 | 40A | |
| | Key Seminars | | | | 10,00 | 380 | 88 | 10 | 16 | 32 | 30 | |
| 1 | Applied Artificial Intelligence Models | C | Department of Applied Mathematics | | 4,00 | 152 | 68 | 10A | 16 | 22 | 20A | |
| 2 | Project Seminar | C | Department of Applied Mathematics | | 6,00 | 228 | 20 | | | 10 | 10A | |
| | Magolego | | | | 3,00 | 114 | | | | | | |
| 1 | All-university Pool MAGOLEGO Courses | C | | | 3,00 | 114 | | | | | | |
| | Internship | | | | 5,00 | 190 | 2 | | | | 2 | |

| | | | | | | | | | | | | |
|---|---------|---|--|----|------|-----|---|--|--|--|----|--|
| | Free | | | | 5,00 | 190 | 2 | | | | 2 | |
| 1 | Project | C | | Fr | 5,00 | 190 | 2 | | | | 2A | |

Curriculum agreed:

| | | |
|---|-----------------|------------|
| Academic Supervisor | Slastnikov S.A. | 27.03.2025 |
| Dean | Kovalenko D.G. | 31.03.2025 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 16.05.2025 |

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|-------------------|---|
| * Subject type: | |
| Compulsory course | C |
| Elective course | E |

Period of execution:

| | |
|------|----|
| Free | Fr |
|------|----|