



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics

Educational Programme "Applied Statistics with Network Analysis"

Trajectories: "Network Analysis"

Implementing unit: Faculty of Social Sciences, HSE - Moscow  
2 nd, 2024/2025 academic year

APPROVED

24.04.2024

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2023/2024 - 2024/2025

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        |                        |
| <b>Degree Programme</b>                 |  |              |  | <b>60,00</b> | <b>2 280</b>         | <b>148</b>    | <b>106</b>                  | <b>86</b> | <b>112</b> | <b>4</b> |                        |
| <b>Network Analysis (General track)</b> |  |              |  | <b>60,00</b> | <b>2 280</b>         | <b>148</b>    | <b>106</b>                  | <b>86</b> | <b>112</b> | <b>4</b> |                        |
| <b>Major</b>                            |  |              |  | <b>18,00</b> | <b>684</b>           | <b>140</b>    | <b>80</b>                   | <b>60</b> | <b>80</b>  |          |                        |
| <b>Elective Courses</b>                 |  |              |  | <b>9,00</b>  | <b>342</b>           | <b>80</b>     | <b>40</b>                   | <b>40</b> | <b>80</b>  |          |                        |
| 1                                       | Time Series Analysis                     | E            | International Laboratory of Applied Network Analysis | 6,00         | 228                  | 40            | 20                          | 20A       |            |          | Foreign language       |
| 2                                       | Unstructured Data Analysis               | E            | International Laboratory of Applied Network Analysis | 6,00         | 228                  | 40            | 20                          | 20A       |            |          | Foreign language       |
| 3                                       | Bayesian Data Analysis                   | E            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 40            |                             |           | 40A        |          | Foreign language       |
| 4                                       | Multilevel Models                        | E            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 40            |                             |           | 40A        |          | Foreign language       |
| 5                                       | Network Analysis: Statistical Approaches | E            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 40            | 40A                         |           |            |          | Foreign language       |
| 6                                       | Stochastic Models                        | E            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 40            |                             |           | 40A        |          | Foreign language       |
| <b>Compulsory Courses</b>               |  |              |  | <b>9,00</b>  | <b>342</b>           | <b>60</b>     | <b>40</b>                   | <b>20</b> |            |          |                        |
| 1                                       | Methods of Statistical Consulting        | C            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 20            | 20A                         |           |            |          | Foreign language       |
| 2                                       | Structural Equation Modeling             | C            | International Laboratory of Applied Network Analysis | 6,00         | 228                  | 40            | 20                          | 20A       |            |          | Foreign language       |
| <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       | Foreign language       |
| <b>Key Seminars</b>                     |  |              |  | <b>8,00</b>  | <b>304</b>           |               | <b>26</b>                   | <b>26</b> | <b>28</b>  |          |                        |
| 1                                       | Working with Network Data                | C            | International Laboratory of Applied Network Analysis | 3,00         | 114                  | 36            | 12                          | 12        | 12A        |          | Foreign language       |

|                            |                                      |   |  |              |            |          |    |    |          |          |                  |
|----------------------------|--------------------------------------|---|--|--------------|------------|----------|----|----|----------|----------|------------------|
| 2                          | Project Seminar                      | C | International Laboratory of Applied Network Analysis | 3,00         | 114        | 36       | 12 | 12 | 12A      |          | Foreign language |
| 3                          | Mentor's Seminar                     | C | International Laboratory of Applied Network Analysis | 2,00         | 76         | 8        | 2  | 2  | 4A       |          | Foreign language |
| <b>Magolego</b>            |                                      |   |  | <b>6,00</b>  | <b>228</b> |          |    |    |          |          |                  |
| 1                          | All-university Pool MAGOLEGO Courses | E |  | 6,00         | 228        |          |    |    |          |          | Foreign language |
| <b>Internship</b>          |                                      |   |  | <b>25,00</b> | <b>950</b> | <b>6</b> |    |    | <b>4</b> | <b>2</b> |                  |
| <b>Research Internship</b> |                                      |   |  | <b>25,00</b> | <b>950</b> | <b>6</b> |    |    | <b>4</b> | <b>2</b> |                  |
| 1                          | Final thesis preparation             | C |  | 12,00        | 456        | 2        |    |    |          | 2        | Foreign language |
| 2                          | Project                              | C |  | 4,00         | 152        | 2        |    |    | 2A       |          | Foreign language |
| 3                          | Work Experience Internship           | C |  | 9,00         | 342        | 2        |    |    | 2A       |          | Foreign language |

**Curriculum agreed:**

Academic Supervisor

Климов И.А.

26.03.2024

Dean

MELVILLE A.Y.

26.03.2024

Head of Centre for  
Educational Model Design

LEPESHKIN I.A.

24.04.2024

\* Subject type:

Compulsory course

C

Elective course

E