



National Research University Higher School of Economics (HSE)

Curriculum
 Field of study 01.03.01 Mathematics
 Educational Programme "Mathematics"
 Implementing unit: Faculty of Informatics, Mathematics and
 Computer Sciences, HSE - Nizhny Novgorod
 3 rd, 2023/2024 academic year

APPROVED
 28.04.2023
 Vice Rector
 ROSHCHIN S.Y.
 Signed with EDS

Length of Programme: 4 years
 Years of Study: 2021/2022 - 2024/2025
 Mode of Study: Full Time
 Degree: Bachelor's degree

| 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 | 1 900 | 752 | 182 | 182 | 226 | 162 | |
| Data Culture | | | | 7,00 | 266 | 10 | | | | 10 | |
| 1 | Data Analysis in Python | C | Department of Fundamental Mathematics | 6,00 | 228 | 8 | | | | 8A | Online Course |
| 2 | Independent Data Science Test. Intermediate | C | отдел развития цифровых компетенций | 1,00 | 38 | 2 | | | | 2A | Online Course |
| Major | | | | 35,00 | 1 330 | 614 | 154 | 154 | 186 | 120 | |
| Core Professional Block (Major) | | | | 8,00 | 304 | 140 | 28 | 28 | 44 | 40 | |
| Subject Areas | | | | 8,00 | 304 | 140 | 28 | 28 | 44 | 40 | |
| Probability Theory | | | | 8,00 | 304 | 140 | 28 | 28 | 44 | 40 | |
| 1 | Probability Theory | C | Department of Fundamental Mathematics | 8,00 | 304 | 140 | 28 | 28A | 44 | 40A | |
| Elective Professional Block (Major) | | | | 27,00 | 1 026 | 474 | 126 | 126 | 142 | 80 | |
| 1 | Differential Geometry | C | Department of Fundamental Mathematics | 7,00 | 266 | 140 | 28 | 28A | 44 | 40A | |
| 2 | Mathematical Physics | C | Department of Mathematics | 6,00 | 228 | 108 | 28 | 28A | 32 | 20A | |
| 3 | Research seminar " Optimization Methods" | C | Department of Fundamental Mathematics | 4,00 | 152 | 56 | 28 | 28A | | | |
| 4 | Research seminar " Functional analysis" | C | Department of Fundamental Mathematics | 4,00 | 152 | 70 | 14 | 14A | 22 | 20A | |
| 5 | Theory of Complex Functions | C | Department of Fundamental Mathematics | 6,00 | 228 | 100 | 28A | 28 | 44A | | Foreign language |
| Minor | | | | 10,00 | | 123 | 28 | 28 | 37 | 30 | |
| 1 | Minor | E | | 10,00 | | 123 | 28 | 28A | 37 | 30A | |
| English | | | | | | 3 | | | 3 | | |
| Examinations | | | | | | 3 | | | 3 | | |
| 1 | Independent English Exam | C | School of Foreign Languages | | | 3 | | | 3A | | Foreign language |
| Internship | | | | 8,00 | 304 | 2 | | | | 2 | |

| Research Internship | | | 8,00 | 304 | 2 | | | | 2 |
|---------------------|------------|---|------|-----|---|--|--|--|----|
| 1 | Term Paper | C | 8,00 | 304 | 2 | | | | 2A |

Curriculum agreed:

| | | |
|---|----------------|------------|
| Academic Supervisor | CHEBOCHKO N.G. | 10.04.2023 |
| Dean | ASEEVA N.V. | 10.04.2023 |
| Deputy Director | FOMENKOV D.A. | 11.04.2023 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 28.04.2023 |

* Subject type:

Compulsory course

C

Elective course

E

Optional course

O