



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 09.03.04 Software Engineering

Educational Programme "Software Engineering"

Implementing unit: Faculty of Informatics, Mathematics and
Computer Sciences, HSE - Nizhny Novgorod

2 nd, 2023/2024 academic year

APPROVED

28.04.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 4 years

Years of Study: 2022/2023 - 2025/2026

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 | 2 442 | 842 | 172 | 172 | 250 | 244 | |
| Data Culture | | | | 3,00 | 114 | 46 | | | | 42 | |
| 1 | External Examinations on Digital Skills. Entry-level | C | отдел развития цифровых компетенций | | | 2 | | 2A | | | |
| 2 | External Examinations on Digital Skills. Intermediate Level | C | отдел развития цифровых компетенций | | | 2 | | | | 2A | |
| 3 | Independent Programming Test. Advanced Level | C | отдел развития цифровых компетенций | | | 2 | | | | 2A | Online Course |
| 4 | Data Scraping using Python | C | Joint Department with MERA Group | 3,00 | 114 | 40 | | | | 40A | Foreign language |
| Major | | | | 35,00 | 1 330 | 528 | 112 | 112 | 176 | 128 | |
| Core Professional Block (Major) | | | | 31,00 | 1 178 | 500 | 112 | 112 | 176 | 100 | |
| 1 | Algorithms and Data Structures 2 | C | Joint Department with MERA Group | 8,00 | 304 | 140 | 28 | 28A | 44 | 40A | |
| 2 | Databases | C | Joint Department with MERA Group | 4,00 | 152 | 56 | 28 | 28A | | | |
| 3 | Software Design | C | Joint Department with MERA Group | 6,00 | 228 | 100 | 28 | 28A | 44A | | |
| 4 | Operating Systems | C | Joint Department with MERA Group | 4,00 | 152 | 64 | | | 44 | 20A | |
| 5 | Java Programming | C | Joint Department with MERA Group | 4,00 | 152 | 84 | | | 44A | 40A | |
| 6 | Probability Theory and Mathematical Statistics | C | Department of Mathematics | 5,00 | 190 | 56 | 28A | 28A | | | |
| Elective Professional Block (Major) | | | | 4,00 | 152 | 28 | | | | 28 | |
| Project Seminar | | | | 4,00 | 152 | 28 | | | | 28 | |
| 1 | Project Seminar "The Basics of DevOps" | C | Joint Department with MERA Group | 4,00 | 152 | 28 | | | | 28A | |

| | Minor | | | 10,00 | 380 | 120 | 32 | 28 | 30 | 30 | |
|---|--------------------------------|---|---------------------------------|--------------|------------|------------|-----------|-----------|-----------|-----------|---|
| 1 | Minor | E | | 10,00 | 380 | 120 | 32 | 28A | 30 | 30A | |
| | English | | | | | | | | | | |
| | Optional Courses | | | | | | | | | | |
| 1 | English | O | | 6,00 | 228 | 104 | 28 | 32 | 44A | | Foreign language, Credits only to the cumulative rating |
| | General Courses | | | 1,00 | 200 | 144 | 28 | 32 | 44 | 40 | |
| | Core General Courses | | | 1,00 | 200 | 144 | 28 | 32 | 44 | 40 | |
| 1 | Physical Training | C | Department of Physical Training | 1,00 | 200 | 144 | 28 | 32A | 44 | 40A | |
| | Internship | | | 11,00 | 418 | 4 | | | | 4 | |
| | Professional Internship | | | 11,00 | 418 | 4 | | | | 4 | |
| 1 | Курсовая работа | C | | 6,00 | 228 | 2 | | | | 2A | |
| 2 | Educational Internship | C | | 5,00 | 190 | 2 | | | | 2A | |

Curriculum agreed:

| | | |
|---|----------------|------------|
| Academic Supervisor | BYCHKOV I.S. | 17.04.2023 |
| Dean | ASEEVA N.V. | 17.04.2023 |
| Deputy Director | FOMENKOV D.A. | 17.04.2023 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 28.04.2023 |

* Subject type:

Compulsory course

C

Elective course

E

Optional course

O