



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

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 | 2 280 | 584 | 130 | 128 | 252 | 74 | |
| Data Culture | | | | 4,00 | 152 | 46 | | | 44 | 2 | |
| 1 | Data Analysis | C | Department of Applied Mathematics and Information Science | 3,00 | 114 | 44 | | | | 44A | |
| 2 | Independent Data Science Test. Advanced Level | C | отдел развития цифровых компетенций | 1,00 | 38 | 2 | | | | 2A | Online Course |
| Major | | | | 34,00 | 1 292 | 384 | 84 | 84 | 176 | 40 | |
| Core Professional Block (Major) | | | | 22,00 | 836 | 284 | 56 | 56 | 132 | 40 | |
| Subject Areas | | | | 22,00 | 836 | 284 | 56 | 56 | 132 | 40 | |
| Software Quality Assurance and Testing | | | | 4,00 | 152 | 56 | 28 | 28 | | | |
| 1 | Software Quality Assurance and Testing | C | Joint Department with MERA Group | 4,00 | 152 | 56 | 28A | 28A | | | |
| Programming | | | | 8,00 | 304 | 100 | 28 | 28 | 44 | | |
| 1 | Web-Programming | C | Joint Department with MERA Group | 4,00 | 152 | 44 | | | 44A | | |
| 2 | Functional Programming | C | Joint Department with MERA Group | 4,00 | 152 | 56 | 28 | 28A | | | |
| Software Architecture | | | | 4,00 | 152 | 64 | | | 44 | 20 | |
| 1 | Software Systems Architecture Design | C | Joint Department with MERA Group | 4,00 | 152 | 64 | | | 44 | 20A | |
| Software Project Management | | | | 6,00 | 228 | 64 | | | 44 | 20 | |
| 1 | Group Dynamics and Communication in Software Engineering Professional Practice | C | Joint Department with MERA Group | 6,00 | 228 | 64 | | | 44 | 20A | |
| Elective Professional Block (Major) | | | | 12,00 | 456 | 100 | 28 | 28 | 44 | | |
| Мобильная разработка | | | | 4,00 | 152 | 56 | 28 | 28 | | | |

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|---------------------------------|---|---|----------------------------------|--------------|------------|------------|-----------|-----------|-----------|------------------|
| 1 | Android Applications Development | E | Joint Department with MERA Group | 4,00 | 152 | 56 | 28 | 28A | | |
| 2 | iOS Development | E | Joint Department with MERA Group | 4,00 | 152 | 56 | 28 | 28A | | |
| Проектный семинар | | | | 8,00 | 304 | 44 | | | 44 | |
| 1 | UI/UX Design | C | Joint Department with MERA Group | 4,00 | 152 | 22 | | | 22A | |
| 2 | Project seminar "Modern technologies of mobile development" | C | Joint Department with MERA Group | 4,00 | 152 | 22 | | | 22A | |
| Minor | | | | 10,00 | 380 | 120 | 32 | 28 | 30 | 30 |
| 1 | Minor | C | | 10,00 | 380 | 120 | 32 | 28A | 30 | 30A |
| English Examinations | | | | | | 2 | | | 2 | |
| Examinations | | | | | | 2 | | | 2 | |
| 1 | Independent English Exam | C | School of Foreign Languages | | | 2 | | | 2A | Foreign language |
| General Courses | | | | 4,00 | 152 | 30 | 14 | 16 | | |
| Optional General Courses | | | | 4,00 | 152 | 30 | 14 | 16 | | |
| 1 | Psychology | C | Department of Psychology | 4,00 | 152 | 30 | 14 | 16A | | Online Course |
| Internship | | | | 8,00 | 304 | 2 | | | | 2 |
| Project Internship | | | | 5,00 | 190 | 2 | | | | 2 |
| 1 | Term Paper | C | | 5,00 | 190 | 2 | | | 2A | |
| Professional Internship | | | | 3,00 | 114 | | | | | |
| 1 | Work Experience Internship | C | | 3,00 | 114 | | | | | |

Curriculum agreed:

| | | |
|---|----------------|------------|
| Academic Supervisor | BYCHKOV I.S. | 24.03.2023 |
| Dean | ASEEVA N.V. | 24.03.2023 |
| Deputy Director | FOMENKOV D.A. | 24.03.2023 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 28.04.2023 |

* Subject type:

Compulsory course
 Elective course
 Optional course

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