



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 01.04.02 Applied Mathematics and Informatics
Educational Programme "Computational Biology and Bioinformatics"

Trajectories: "Bioinformatics"

Implementing unit: St. Petersburg School of Mathematics,
Physics and Computer Science, HSE, HSE - Saint Petersburg
2 nd, 2024/2025 academic year

APPROVED
08.05.2024

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 | |
| | Degree Programme | | | 60,00 | 2 280 | 232 | 104 | 108 | 8 | 12 | |
| | Bioinformatics (Applied track) | | | 60,00 | 2 280 | 232 | 104 | 108 | 8 | 12 | |
| | Major | | | 18,00 | 684 | 136 | 68 | 68 | | | |
| | Major (3 out of 3) | | | 18,00 | 684 | 136 | 68 | 68 | | | |
| 1 | Computational Geometry | C | Informatics Department | 6,00 | 228 | 40 | 20A | 20A | | | |
| 2 | Deep Learning | C | Informatics Department | 6,00 | 228 | 44 | 22 | 22A | | | |
| 3 | Functional Programming | C | Informatics Department | 6,00 | 228 | 52 | 26 | 26A | | | |
| | Final State Certification (FSC) | | | 3,00 | 114 | 2 | | | | 2 | |
| 1 | Final Qualification Paper | C | | 3,00 | 114 | 2 | | | | 2A | |
| | Key Seminars | | | 12,00 | 456 | 92 | 36 | 40 | 8 | 8 | |
| 1 | Research seminar "Structural bioinformatics and molecular dynamics" | C | Informatics Department | 6,00 | 228 | 60 | 28 | 32A | | | |
| 2 | Mentor's Seminar | C | Informatics Department | 6,00 | 228 | 32 | 8 | 8 | 8 | 8A | |
| | Magolego | | | 6,00 | 228 | | | | | | |
| 1 | All-university Pool MAGOLEGO Courses | E | | 6,00 | 228 | | | | | | |
| | Internship | | | 21,00 | 798 | 2 | | | | 2 | |
| | Project Internship | | | 21,00 | 798 | 2 | | | | 2 | |
| 1 | Preparation of final qualification paper | C | | 21,00 | 798 | 2 | | | | 2 | |

Curriculum agreed:

Academic Supervisor

YAKOVLEV P.A.

27.04.2024

| | | |
|--|----------------|------------|
| Dean | | 27.04.2024 |
| Deputy Director | KUZMIN P.V. | 27.04.2024 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 07.05.2024 |

* Subject type:

Compulsory course

C

Elective course

E