



National Research University Higher School of Economics (HSE)

Curriculum

Field of study 04.04.01 Chemistry

Educational Programme "Chemistry of Molecular Systems and Materials"

Trajectories: "Chemistry of Molecular Systems and Materials"

Implementing unit: Faculty of Chemistry, HSE - Moscow

1 st, 2024/2025 academic year

APPROVED

19.04.2024

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years

Years of Study: 2024/2025 - 2025/2026

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 | 334 | 16 | 42 | 142 | 134 | |
| Chemistry of Molecular Systems and Materials (Research track) | | | | 60,00 | 2 280 | 334 | 16 | 42 | 142 | 134 | |
| Major | | | | 15,00 | 570 | 188 | | | 100 | 88 | |
| Faculty Pool Disciplines | | | | 6,00 | 228 | 80 | | | 40 | 40 | |
| 1 | Faculty Pool Disciplines | E | | 6,00 | 228 | 80 | | | 40A | 40A | |
| Compulsory Courses | | | | 9,00 | 342 | 108 | | | 60 | 48 | |
| 1 | Probability Theory, Statistics and Exploratory Data Analysis | C | Department of Big Data and Information Retrieval | 3,00 | 114 | 12 | | | 12A | | Online Course, Foreign language |
| 2 | Physico-chemical Methods for the Study of Molecular Systems and Materials | C | базовая кафедра элементоорганической химии Института элементоорганических соединений им. А.Н. Несмеянова РАН | 6,00 | 228 | 96 | | | 48 | 48A | |
| Key Seminars | | | | 12,00 | 456 | 140 | 16 | 42 | 40 | 42 | |
| Elective Research Seminars | | | | 3,00 | 114 | 40 | 10 | 10 | 10 | 10 | |
| 1 | Research Seminar "Inorganic Chemistry and Materials Science" | E | базовая кафедра неорганической химии и материаловедения Института общей и неорганической химии им. Н.С. Курнакова РАН | 3,00 | 114 | 40 | 10 | 10 | 10 | 10A | |
| 2 | Research Seminar ""Organic and Organoelement Chemistry" | E | базовая кафедра элементоорганической химии Института элементоорганических соединений им. А.Н. Несмеянова РАН | 3,00 | 114 | 40 | 10 | 10 | 10 | 10A | |

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| 3 | Research Seminar "Chemical Engineering" | E | базовая кафедра физико-химической инженерии ФИЦ проблем химической физики и медицинской химии РАН | 3,00 | 114 | 40 | 10 | 10 | 10 | 10A |
| Compulsory Research Seminars | | | | 9,00 | 342 | 100 | 6 | 32 | 30 | 32 |
| 1 | Research Seminar "Modern World Trends in Chemistry and Chemical Technology" | C | базовая кафедра неорганической химии и материаловедения Института общей и неорганической химии им. Н.С. Курнакова РАН | 6,00 | 228 | 72 | | 24 | 24 | 24A |
| 2 | Mentor's Seminar | C | базовая кафедра органической химии Института органической химии им.Н.Д. Зелинского РАН | 3,00 | 114 | 28 | 6 | 8 | 6 | 8A |
| Magolego | | | | 6,00 | 228 | | | | | |
| 1 | All-university Pool MAGOLEGO Courses | E | | 6,00 | 228 | | | | | |
| Internship | | | | 27,00 | 1 026 | 6 | | | 2 | 4 |
| Research Internship | | | | 27,00 | 1 026 | 6 | | | 2 | 4 |
| 1 | Writing a Scientific Article | C | | 9,00 | 342 | 2 | | | | 2A |
| 2 | Research Project | C | | 3,00 | 114 | 2 | | | 2A | |
| 3 | Work Experience Internship (Research) | C | | 15,00 | 570 | 2 | | | | 2A |

Curriculum agreed:

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|---|-------------------|------------|
| Academic Supervisor | ROYTERSHTEYN D.M. | 09.04.2024 |
| Dean | KOTOV V.I. | 09.04.2024 |
| Head of Centre for Educational Model Design | LEPESHKIN I.A. | 18.04.2024 |

* Subject type:

Compulsory course

C

Elective course

E