



POLYTECH

Peter the Great
St. Petersburg Polytechnic
University

NATURAL SCIENCES

MESOSCOPICS AND ADVANCED MATERIALS

PROGRAM NAME: Innovative Mesoscopics and Advanced Materials

AWARD: Master of Science

MODE OF STUDY: full-time

COURSE DURATION: 2 years: 3 semesters at SPbPU + 1 semesters at a partner university (optional)

PROGRAM OUTLINE: The program is tailored for those who are aspired to deepen their knowledge of physics. The program provides professional knowledge and practical skills in the prospective areas of modern physics: mesoscopics and physics of advanced materials with unique properties.

CURRICULUM (GENERAL MODULES):

MODULES	ECTS
Humanities	11.5
Solid State Physics	15
Material Science	16
Nanoscience	11
Advanced Problems in Physics	5
Computer Modeling of Physical Processes	6
Master's Thesis, Scientific Research Work	55.5
Total	120

ENTRY REQUIREMENTS: Bachelor's, Specialist's or Master's degree in a relevant area is required / English language proficiency - B+ (CEFR B2) / Exam Test in a relevant field of studies / Interview in English with a program coordinator (Skype option is available)

PARTNERS:

- Germany – Frankfurt Institute for Advanced Studies
- Iceland – Science Institute, University of Iceland
- Singapore – Nanyang Technological University
- Finland – Lappeenranta University of Technology

CAREER OPPORTUNITIES: Our graduates have strong knowledge and skills to pursue a research career within university, industrial or research laboratory and may expect positions in the field of design and application of novel optical materials, including metamaterials and heterogeneous nanomaterials, as well as R&D in nanotechnologies.

