

Nanotechnology and Materials for Micro- and Nanosystems

PROGRAM STRUCTURE (Curriculum)

| Total: 120 ECTS | | | |
|------------------------|---|--|--------------------------------|
| 44 ECTS | Core and required courses | 16 ECTS | Elective courses |
| 27 ECTS | Internship | 33 ECTS | Research and Ms Thesis project |
| First year | First semester | | 27 ECTS |
| | Modern Methods of Structural Characterisation of Micro- and Nanosystems | | 4 |
| | Foreign Language (English / Russian) | | 6 |
| | Management of Quality | | 2 |
| | Project Management | | 3 |
| | Metal-carbon Nanocomposites | | 4 |
| | Research | | 8 |
| | Second semester | | 33 ECTS |
| | Foreign Language (English / Russian) | | 2 |
| | Technology and Materials of Quantum Electronics | | 4 |
| | Methods of Mathematical Modeling | | 6 |
| | Spintronics Materials and Devices | | 4 |
| | Synthesis of Nanomaterials and Heterostructures | Electronic Properties of Quantum Confined Semiconductor Heterostructures | 4 |
| | Research | | 7 |
| | Internship | | 6 |
| Second year | Third semester | | 30 ECTS |
| | Physics & Engineering of Magnetic Nanomaterials, Micro- and Nanosystems | | 5 |
| | Embedded Systems and Software Engineering | | 8 |
| | Micro and Nanosensors | | 4 |
| | Simulation Methods | Modern Methods of Atomic Modelling | 4 |
| | Research | | 9 |
| | Fourth semester | | 30 ECTS |
| | Internship | | 21 |
| | Final State Attestation (incl. Ms Thesis Defense) | | 9 |