FACULTY OF MATHEMATICS AND NATURAL SCIENCES

- Please try to choose the courses from the same semester, in order to avoid timetable clashed.
- The majority of your subjects (around 3) should be from your main faculty with which your university has an agreement.
- Bachelor level students are only allowed to choose Master level subjects after receiving a permission from the professor of that subject.

Autumn

Course code	Course title	ECTS/Credits	Semester
P000B011	Introduction to specialty	6	1
P190B101	Physics 1	6	3
P230B202	Physics 2	6	3
P190B001	Thermodynamics and Statistical Physics	6	3
P200B403	Electrodynamics	6	5
P240B001	Vacuum Physics and Technics	3	5
T150B221	Micro- and Nanotechnology: Applications and Analysis Methods	9	5
P260B103	Physics of Surface Phenomena	6	5
P220B305	Nuclear and Particle Physics	6	7
T150B210	Phenomena of Modern Optics and Nanophononics	6	7
P520B001	Astrophysics	3	5
T150B226	Thin Films and Nanomaterials Engineering	6	7
P190B117	Mathematical Physics and Numerical Methods	6	3
P130B001	Mathematics 1	6	1
P160B003	Theory of Probability and Statistics	6	3
P160B117*	Stochastic Processes	6	7
P170B127*	Data Security	6	alternative
P160B124*	Machine Learning Methods	6	5
P130B003*	Differential Equations	6	3

Spring

P190B302	Quantum Mechanics	6	6
P190B118	Classical Physics	6	2
P250B301	Solid State Physics	6	6
P190B005	Classical Mechanics	6	4
P260B001	Physics of Materials	6	2
P130B002	Mathematics 2	6	2
P160B116*	Optimization Methods	6	4
P170B111*	Cryptology	6	4
P200B103	Optics	3	6

Master courses

Autumn

Course code	Course title	ECTS/Credits	Semester
P130M100	Nonlinear Dynamical Models	6	3
P170M100	Cryptographic systems	6	1
P170M115	Mathematical Methods of Artificial Intelligence	6	1
P000M013	Research Project 1	6	1
P160M101	Multivariate Statistical Analysis	6	1
P110M001	Combinatorial Optimization	6	3
P000M015	Research Project 3	6	3
B140M104	Medical Radiation Physics	6	1
B140M006	Radiation Protection and Safety	6	1
B145M002	Radiobiology and Mathematical Modelling	6	1
B470M001	Fundamentals of Human Anatomy and Physiology	6	1
B140M102	Ionizing Radiation Imaging Instruments and Methods in Medicine	6	3
P160M126	Business Risk and Uncertainty Analytics	6	3
B145M010	Applied Radionuclide Physics	3	3
B140M004	Radiation Therapy Physics	9	3
B140M105	Radiation pollution	6	3
B000M003	Research Project 3	6	3
B000M001	Research Project 1	6	1

Spring

P170M120	Neural networks	6	2
B110M002	Digital Processing of Biomedical Signals	6	2
T160M004	Radiation Detectors and Measurements	6	2
B140M003	Diagnostic Radiation Physics	6	2
B000M002	Research Project 2	6	2
P000M014	Research Project 2	6	2