

**VYTAUTAS MAGNUS UNIVERSITY
FACULTY OF NATURE SCIENCES**

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Contact person Prof. L.Pranevicius

Energy Physics (BSc study program)

Identification code: 61202P104

Duration: 4 years

240 ECTS

Qualification: BSc in Physics

Subject	Code	ECT
Compulsory subjects		
Mathematics 1	MAT 1011	6
Mathematics 2	MAT 1012	6
Probability theory and statistics	MAT 1013	6
Computer physics	FIZ 3102	6
Numerical physics	FIZ 3108	6
Main subjects		
Mechanics	FIZ 1101	6
Physical practicum	FIZ 1102	3
Thermodynamics	FIZ 1104	6
Electricity and magnetism	FIZ 2102	6
Optics	FIZ 2104	6
Quantum mechanics	FIZ 3101	6
Heat and mass transfer	FIZ 3103	6
Atom and subatom physics	FIZ 3106	4.5
Solid state physics and electronics	FIZ 3107	6
Statistical physics	FIZ 3109	6
Physical kinetics and chemistry	FIZ 4101	6
Special subjects		
Compulsory		
Energy economics	FIZ 1103	4.5
Electrical measurements	FIZ 2103	3
Physics of energy transformations	FIZ 2105	6
Renewable energy sources	FIZ 3104	6
Methods of experimental Physics	FIZ 3105	3
Physics of engineering	FIZ 4102	6
Energy storage and transfer	FIZ 4103	6
Ecology of energy	FIZ 4106	3
Semester work	FIZ 4107	4.5
Terminology	LGF 2001	4.5
Free to choose (1)		
Energy sources	FIZ 2106	6

Material science	FIZ 2107	6
<i>Total : 6 ECT</i>		
Free to choose II (1)		
Plasma physics	FIZ 3110	6
Surface physics	FIZ 3111	6
<i>Total: 6 ECT</i>		
Free to choose III (1)		
Environmental physics	FIZ 4104	6
Laser physics	FIZ 4105	6
Physical chemical analysis	BBK 3002	6
<i>Total: 6 ECT</i>		
BSc thesis		
Final work		15
<i>Total: 15 ECT</i>		
Practical training		
Professional training	FIZ 4108	15
<i>Total: 15 ECT</i>		