TITLE	ECTS	exam type	Semester	hour/semester				Instructor-in-charge	Prerequisite
				lecture	practice	seminar	laboratory		
total credit (6 semester)	180								
total credit - 1. semester	31		1						
total credit - 2. semester	31		2						
total credit - 3. semester	33		3						
total credit - 4. semester	29		4						
total credit - 5. semester	28		5						
total credit - 6. semester	28		6						
Obligatory courses									
Basic mathematics	2	Mark	1		26			Dr. Tóth György	
Introduction to advanced mathematics	4	Mark	1		39			Dr. Tóth György	
Computer technology I.	2	Oral	1	26				Dr. Almási Gábor	
Computer programming I.	3	Mark	1		26			Dr. Turnár Szabolcs	
Elementary Linear Algebra	5	Oral	1	26	26			Dr. Simon Ilona	
Introduction to astronomy	2	Oral	1	26				Dr. Gyenizse Péter	
Software packages	3	Mark	2		26			Dr. Mechler Mátyás	
Operating Systems	3	Oral	2	26				Dr. Almási Gábor	
Computer programming II.	3	Mark	2		26			Dr. Turnár Szabolcs	
Problem solving in physics	4	Mark	1		39			Dr. Pálfalvi László	
Introductory mechanics lecture	2	Oral	1	26				Dr. Pálfalvi László	
Introductory mechanics seminar	3	Mark	1			26		Dr. Pálfalvi László	
Introductory mechanics practical course	4	Mark	1		39			Dr. Pálfalvi László	
Introductory thermodynamics lecture	2	Oral	2	26				Dr. Pálfalvi László	
Introductory thermodynamics practical course	4	Mark	2		39			Dr. Pálfalvi László	
Waves and optics lecture	2	Oral	2	26				Dr. Erostyák János	
Waves and optics seminar	3	Mark	2			26		Dr. Erostyák János	
Waves and optics practical course	3	Mark	2		26			Dr. Erostyák János	
Mathematical methods in physics I.	4	Mark	2		39			Dr. Tóth György	
Introduction to mathematical analysis	4	Oral	2	39				Dr. Gál Tamás	
Electricity and magnetism lecture	2	Oral	3	26				Dr. Almási Gábor	
Electricity and magnetism seminar	3	Mark	3			26		Dr. Almási Gábor	
Electricity and magnetism practical course	3	Mark	3		26			Dr. Almási Gábor	
Modern physics I. lecture	4	Mark	3			39		Dr. Polónyi Gyula	
Physics laboratory I.	4	Mark	3				52	Dr. Krizsán Gergő	
Mechanics lecture	2	Oral	3	26				Dr. Paragi Gábor	
Mechanics practical course	3	Mark	3		26			Dr. Paragi Gábor	
Mathematical methods in physics II.	4	Mark	3		39			Dr. Tóth György	
Computer algebra lecture	2	Oral	3	26				Dr. Tibai Zoltán	
Computer algebra practical course	2	Mark	3		26			Dr. Tibai Zoltán	
Metrology lecture	2	Oral	3	26				Dr. Polónyi Gyula	
Metrology practical course	2	Mark	3		13			Dr. Polónyi Gyula	
Modern physics II. lecture	4	Mark	4			39		Dr. Polónyi Gyula	
Physics laboratory II.	4	Mark	4				52	Dr. Krizsán Gergő	

TITLE	ECTS	exam type	Semester	hour/semester				Instructor-in-charge	Prerequisite
				lecture	practice	seminar	laboratory		
Electrodynamics lecture	2	Oral	4	26				Dr. Pálfalvi László	
Electrodynamics practical course	3	Mark	4		26			Dr. Pálfalvi László	
Mathematical methods in physics III.	3	Mark	4		26			Dr. Tóth György	
Numerical methods lecture	2	Oral	4	26				Dr. Tóth György	
Numerical methods practical course	3	Mark	4		26			Dr. Tóth György	
Electronics lecture	2	Oral	5	26				Dr. Almási Gábor	
Electronics practical course	3	Mark	5		26			Dr. Almási Gábor	
Quantum mechanics lecture	2	Oral	5	26				Dr. Gál Tamás	
Quantum mechanics practical course	3	Mark	5		26			Dr. Gál Tamás	
Statistical physics lecture	3	Oral	5	26				Dr. Gál Tamás	
Thesis consultation I	5		5						
Thesis consultation II	5		6						
Facultative courses									
Facultative courses	8		4						
Facultative courses	10		5						
Facultative courses	14		6						
Informatics specialisation (30 credits completed as follows: - at least 5 credits from Computer algebra subject group; - at least 15 credits from the area of knowledge of computer physicist subject group; - at least 2 credits from Visualization subject grop; - at least 5 credits from Database management knowledge subject group; - at least 3 credits from Programming knowledge subject group.)									
Computer algebra subject group									
Computer algebra II. lecture	2	Oral	spring	26				Dr. Tibai Zoltán	
Computer algebra II. practical course	3	Mark	spring		26			Dr. Tibai Zoltán	
MATLAB I	3	Mark	spring		26			Dr. Mechler Mátyás	
MATLAB II	2	Mark	autumn		26			Dr. Mechler Mátyás	
Knowledge of computer physicsist subject group									
Microcontroller programming	4	Mark	autumn				52	Dr. Almási Gábor	
Computer programming III.	4	Mark	autumn		52			Dr. Turnár Szabolcs	
Computer networks	6	Oral	autumn	26	26			Dr. Mechler Mátyás	
Computer technology II.	3	Oral	spring	26				Dr. Almási Gábor	
Digital measurements	3	Mark	autumn		26			Dr. Polónyi Gyula	
Multiphysics	3	Mark	spring		39			Dr. Tibai Zoltán	
Algorithms, data structures lecture	5	Oral	spring	26	26			Dr. Almási Gábor	
Visualization subject group									
Visualization techniques	3	Mark	autumn		26			Dr. Almási Gábor	
CAD I.	2	Mark	autumn		26			Kiss Mátyás	
CAD II.	2	Mark	spring		26			Kiss Mátyás	
Database management knowledge subject group									
Relation databases lecture	5	Oral	autumn	26	26			Dr. Horváth Zoltán	

TITLE	ECTS	exam type	Semester	hour/semester				Instructor-in-charge	Prerequisite
				lecture	practice	seminar	laboratory		
State-of-art database systems	4	Mark	spring		26			Dr. Horváth Zoltán	
Programming knowledge subject group									
LabView basics	3	Mark	spring		26			Kiss Mátyás	
LabView II.	3	Mark	autumn		26			Kiss Mátyás	
Basics of C#	3	Mark	spring		26			Dr. Mogyorósi Gábor	
Software development technologies	5	Mark	spring	13	39			Kiss-Vincze tamás	
Frontend frameworks	3	Mark	spring		26			Dr. Horváth Zoltán	
Web programming I.	6	Mark	autumn	26	26			Kiss-Vincze Tamás	
Web programming II.	5	Mark	spring	26	26			Kiss-Vincze Tamás	Web programming I.
Applied physicist (Optics and laser physics) specialisation (at least 30 credits to be completed from the subjects of applied physics specialisítion)									
Modern optics laboratory	4	Mark	autumn				52	Dr. Krizsán Gergő	
Optical measurement methods lecture	3	Oral	autumn	26				Dr. Erostyák János	
Generation and application of THz pulses	3	Oral	autumn	26				Dr. Hebling János	
Fluorescence spectroscopy	3	Oral	autumn	26				Dr. Erostyák János	
THz spectroscopy	3	Oral	spring	26				Dr. Krizsán Gergő	
Lasers and their applications	3	Oral	spring	26				Dr. Hebling János	
Fundamentals of particles accelaration	3	Oral	autumn	39				Dr. Tibai Zoltán	
Applications of the optical desingns	4	Mark	autumn		26			Dr. Pálfalvi László	
Advanced measurement instrumentation	3	Oral	spring	26				Dr. Buzády Andrea	
Waveguide optics	3	Oral	spring	26				Dr. Kuhlevszkij Szergej	
X-ray lasers	3	Oral	spring	26				Dr. Kuhlevszkij Szergej	
CAD I.	3	Mark	autumn		26			Dr. Polónyi Gyula	
LabView basics	3	Mark	spring		26			Kiss Mátyás	
Digital measurements	3	Mark	autumn				26	Dr. Polónyi Gyula	
Manager physicist specialisation (at least 32 credits to be completed)									
Foundation Economics	6	Oral	spring	52				Varga Attila	
Accounting	6	Oral	autumn	26	26			Budai Eleonóra	
Leadership and Management	6	Oral	autumn	26	26			Jarjabka Ákos	
Corporate Finance	6	Oral	spring	26	26			Ulbert József	
Microeconomics	6	Oral	spring	26	26			Barancsuk János	
Communication at the Workplace	6	Mark	spring	26	26			Merza Péter János	
Patents and innovation	4	Mark	spring			26		Almási Gábor	
Further facultative courses									
Theoretical physics subject group									
Mechanics seminar	3	Mark	autumn			26		Dr. Paragi Gábor	
Electrodynamics seminar	3	Mark	spring			26		Dr. Pálfalvi László	
Quantum mechanics seminar	3	Mark	spring			26		Dr. Gál Tamás	
Applied mathematics subject group									
Numerical methods in physics I.	3	Mark	autumn			39		Dr. Tóth György	
Applied linear algebra lecture	2	Oral	spring	26				Lucskai Gábor	
Applied linear algebra practical course	2	Mark	spring		26			Lucskai Gábor	
Disckrete mathematics subject group									

TITLE	ECTS	exam type	Semester	hour/semester				Instructor-in-charge	Prerequisite
				lecture	practice	seminar	laboratory		
Discrete mathematics I	6	Oral	spring	26	26			Dr. Tóth László	
Discrete mathematics II	4	Oral	autumn	26	26			Dr. Tóth László	
Analysis subject group									
Analysis I. lecture	3	Oral	autumn	39				Dr. Pap Margit	
Analysis I. practice	2	Mark	autumn		26			Dr. Pap Margit	
Analysis II. lecture	3	Oral	spring	39				Dr. Pap Margit	
Analysis II. practice	2	Mark	spring		26			Dr. Pap Margit	
Analysis III. lecture	2	Oral	autumn	26				Dr. Pap Margit	
Analysis III. practice	2	Mark	autumn		26			Dr. Pap Margit	
Complex function lecture	2	Oral	autumn	26				Dr. Pap Margit	
Complex function practice	2	Mark	autumn		26			Dr. Pap Margit	
Fourier series	5	Oral	spring	39				Dr. Eisner Timea	
Other facultative courses									
Document preparation with LaTeX	3	Mark	spring		26			Dr. Mechler Mátyás	
Introduction into Maxima	2	Mark	spring		26			Dr. Mechler Mátyás	
Astrophysics	3	Oral	autumn	26				Dr. Bíró Barna Imre	
History of physics	3	Oral	spring	26				Dr. Gál Tamás	
Meteorology	2	Oral	spring	26				Dr. Geresdi István	
Computational molecular modelling	3	Mark	spring			26		Dr. Paragi Gábor	
Density functional theory	3	Mark	spring			26		Dr. Paragi Gábor	
Talent promotion and physics olympiads	3	Mark	autumn			39		Dr. Pálfalvi László	
Analogies in physics	3	Mark	autumn			39		Dr. Pálfalvi László	
Plasma physics	3	Oral	spring	26				Dr. Kuhlevszkij Szergej	
Elective courses (9 credits to be completed)									
Elective courses	9		6						