

	English course title	Course type/exam	Semester - hour/week						credit	Prerequisite	Instructor-in-charge
			1	2	3	4	5	6			
Obligatory courses											
	Introduction to mathematical analysis	practice/mark	2						2		Dr. Tóth György
	Introduction to advanced mathematics	practice/mark	3						3		Dr. Tóth György
	Computer technology I.	lecture/oral	2						2		Dr. Almási Gábor
	Computer programming I.	practice/mark	2						2		Dr. Mechler Mátyás
	Linear algebra	lect+pract/oral	2+2						4		Dr. Frigyik András
	Introduction to astronomy	lecture/oral	2						2		Dr. Gyenizse Péter
	Software packages	practice/mark		2					2		Dr. Mechler Mátyás
	Operating Systems	seminar/mark	3						3		Dr. Almási Gábor
	Computer programming II.	practice/mark		2					3		Dr. Mechler Mátyás
	Problem solving in Physics	practice/mark	3						3		Dr. Pálfalvi László
	Introductory mechanics lecture	lecture/oral	2						2		Dr. Buzády Andrea
	Introductory mechanics seminar	seminar/mark	2						2		Dr. Buzády Andrea
	Introductory mechanics practical course	practice/mark	3						3		Dr. Buzády Andrea
	Introductory thermodynamics lecture	lecture/oral		2					2		Dr. Pálfalvi László
	Introductory thermodynamics practical course	practice/mark		3					3		Dr. Pálfalvi László
	Waves and optics lecture	lecture/oral		2					2		Dr. Erostyák János
	Waves and optics seminar	seminar/mark		2					2		Dr. Erostyák János
	Waves and optics practical course	practice/mark		2					2		Dr. Erostyák János
	Mathematical methods in physics I.	practice/mark		3					3	Basic mathematics AND Introduction to advanced mathematics	Dr. Tóth György

	Basic calculus	lecture/oral		3					3	Basic mathematics	Dr. Gál Tamás
	Electricity and magnetism lecture	lecture/oral			2				2	Basic mathematics	Dr. Almási Gábor
	Electricity and magnetism seminar	seminar/mark			2				2	Basic mathematics	Dr. Almási Gábor
	Electricity and magnetism practical course	practice/mark			2				2	Basic mathematics	Dr. Almási Gábor
	Modern physics I. lecture	seminar/mark			3				3	Basic mathematics	Dr. Fülöp József
	Physics laboratory I.	lab/mark			4				4	Basic mathematics	Dr. Buzády Andrea
	Mechanics lecture	lecture/oral			2				2	Basic mathematics AND Introduction to advanced mathematics	Dr. Paragi Gábor
	Mechanics practical course	practice/mark			2				2	Basic mathematics AND Introduction to advanced mathematics	Dr. Paragi Gábor
	Mathematical methods in physics II.	practice/mark			3				3	Basic mathematics AND Introduction to advanced mathematics	Dr. Tóth György
	Computer algebra lecture	lecture/oral			2				2	Basic mathematics	Dr. Tibai Zoltán
	Computer algebra practical course	practice/mark			2				3	Basic mathematics	Dr. Tibai Zoltán
	Metrology lecture	lecture/oral			2				2	Basic mathematics	Dr. Márton Zsuzsanna
	Metrology practical course	practice/mark			1				1	Basic mathematics	Dr. Márton Zsuzsanna
	Modern physics II. lecture	seminar/mark				3			3	Basic mathematics	Dr. Fülöp József
	Physics laboratory II.	lab/mark				4			4	Basic mathematics	Dr. Buzády Andrea
	Electrodynamics lecture	lecture/oral				2			2	Basic mathematics AND Introduction to advanced mathematics	Dr. Pálfalvi László
	Electrodynamics practical course	practice/mark				2			2	Basic mathematics AND Introduction to advanced mathematics	Dr. Pálfalvi László

	Databases modul (at least 5 credit)								5		
	Programing modul (at least 3 credit)								3		
	others, see below (at least 13)								13		
	Elective courses		autumn	spring							
Theoretical physics modul	Mechanics seminar	seminar/mark	2						3	Basic mathematics	Dr. Paragi Gábor
	Electrodynamics seminar	seminar/mark		2					3	Basic mathematics	Dr. Pálfalvi László
	Quantum mechanics seminar	seminar/mark	2						3	Basic mathematics	Dr. Gál Tamás
Applied mathematics modul	Numerical methods in physics I.	seminar/mark	3						3	Numerical methods lecture AND practice	Dr. Tóth György
	Numerical methods in physics II.	seminar/mark		3					3	Numerical methods lecture AND practice	Dr. Tóth György
	Applied linear algebra lecture	lecture/oral		2					2		Dr. Simon Ilona
	Applied linear algebra practical course	practice/mark		2					2		Dr. Simon Ilona
	Partial differential equations	practice/mark		2					2	Basic mathematics	Dr. Korpa Csaba
Visualization modul	Visualization techniques	practice/mark	2						3	Basic mathematics	Dr. Almási Gábor
	CAD I.	practice/mark	2						2	Basic mathematics	Dr. Polónyi Gyula
	CAD II.	practice/mark		2					2	Basic mathematics	Dr. Polónyi Gyula
Computer algebra modul	Computer algebra II. lecture	lecture/oral		2					2	Basic mathematics	Dr. Tibai Zoltán
	Computer algebra II. practical course	practice/mark		2					3	Basic mathematics	Dr. Tibai Zoltán
	MATLAB I	practice/mark		3					3	Basic mathematics	Dr. Mechler Mátyás
	MATLAB II	practice/mark	2						2	Basic mathematics	Dr. Mechler Mátyás
	LabView basics	practice/mark		2					3	Basic mathematics	Dr. Márton Zsuzsanna
	LabView II.	practice/mark	2						3		Dr. Márton Zsuzsanna
	Basic of Python	practice/mark		3					3	Computer programming I.	Bodor András
	Scientific programming in Python	practice/mark		3					3	Basic of Python	Bodor András

Programming modul	Python for handling structured data	practice/mark	2						2	Basic of Python	Dr. Almási Gábor
	Basics of C#	lect+pract/mark		3					3	Computer programming I.	Dr. Zentai Norbert
	PHP programming lecture	lect+pract/mark		3					3	Computer programming I.	Rébay Viktor
	Java basics lecture	lect+pract/mark		3					3	Computer programming I.	
	Web programming I.	lect+pract/mark	4						5	Computer programming I.	Rébay Viktor
	Web programming II.	lect+pract/mark		4					5	Web programming I.	Rébay Viktor
	Basics of mobile application development	lect+pract/mark		4					5	Computer programming I.	Rébay Viktor
Databases modul	Relation databases lecture	lect+pract/mark	2+2						5		Dr. Laczkó József
	Modern database systems lecture	lecture/oral	3						3	Relation databases lecture	Dr. Pauler Gábor
Discrete mathematics modul	Discrete mathematics lecture	lect+pract/oral	2+2						5		Dr. Szabó Sándor
	Discrete mathematics lecture	lect+pract/oral		2+2					5		Dr. Jenei Sándor
Computational physics modul	Microcontroller programming	lab/mark	4						4	Computer programming I.	Dr. Almási Gábor
	Computer programming III.	practice/mark	4						4	Computer programming I.	Dr. Mechler Mátyás
	Computer networks lecture	lecture/oral	2						2		Dr. Mechler Mátyás
	Computer networks practical course	practice/mark	2						2		Dr. Mechler Mátyás
	Computer technology II.	lecture/oral		2					3		Dr. Almási Gábor
	Digital measurements	lab/mark	2						3	Basic mathematics	Dr. Márton Zsuzsanna
	Multiphysics	practice/mark		3					3	Basic mathematics	Dr. Tibai Zoltán
	Algorithms, data structures lecture	lect+pract/mark		2+2					5		Dr. Jenei Sándor
Operating systems	lect+pract/oral		4					5			
	Calculus I. lecture	lecture/oral	3						4	Basic mathematics	Dr. Pap Margit
	Calculus I. practice	practice/mark	2						2	Basic mathematics	Dr. Pap Margit

Matematikai analízis tantárgycsoport	Calculus II. lecture	lecture/oral		3					4	Calculus I. lecture AND practice	Dr. Pap Margit
	Calculus II. practice	practice/mark		2					2	Calculus I. lecture AND practice	Dr. Pap Margit
	Calculus III. lecture	lecture/oral	2						2	Calculus II. lecture AND practice	Dr. Pap Margit
	Calculus III. practice	practice/mark	2						2	Calculus II. lecture AND practice	Dr. Pap Margit
Physics laboratory modul	Physics laboratory III.	lab/mark	4						4	Basic mathematics	Dr. Buzády Andrea
Optics modul	Optical measurement methods lecture	lecture/oral	2						2	Basic mathematics	Dr. Erostyák János
	Optical measurement methods laboratory	lab/mark		2					2	Basic mathematics	Dr. Erostyák János
	Generation and application of THz pulses	lecture/oral	2						2	Waves and optics	Dr. Hebling János
	Fluorescence spectroscopy	lecture/oral	2						2	Waves and optics	Dr. Erostyák János
	Lasers and their applications	lecture/oral		2					2	Waves and optics	Dr. Hebling János
Other elective courses	Document preparation with LaTeX	practice/mark		2					3		Dr. Mechler Mátyás
	Introduction into Maxima	practice/mark		2					2		Dr. Mechler Mátyás
	History of physics	lecture/oral		2					2	Electrodynamics	Dr. Buzády Andrea
	Meteorology	lecture/oral		2					2		Dr. Geresdi István
	Advanced measurement instrumentation	lecture/oral		2					3	Electricity and magnetism	Dr. Buzády Andrea
Facultative courses - 10 credits to be completed											