

Faculty of Physics, Mathematics and Computer Science  
 Major: Applied physics, Specialization: Computer modeling  
 Level of qualification: second-cycle programme study, Education profile: general academic

Valid for academic year: 2019/2020		Summary										Semester I										Semester II										Semester III											
No.	Updated on:	Hours	ECTS	W	C	L	K	S	P	E	W	C	L	K	S	P	E	W	C	L	K	S	P	E	W	C	L	K	S	P	E	W	C	L	K	S	P	E					
<b>A</b>	<b>General subjects</b>	60	5	30	30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
1	English in physics and technology	30	2	0	30	0	0	0	0	0	0	0	0	0	0	0	0	2																									
2	Humanities	30	3	30	0	0	0	0	0	0	0	0	0	0	0	0	0	2																									
<b>B</b>	<b>Basic subjects</b>	120	8	30	15	45	15	0	15	30	15	45	15	0	15	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1	Computer assisted experimentation	45	3	15	15	0	0	0	15	15	15	0	0	0	15	3E																											
2	Specialized laboratories	45	3	0	0	45	0	0	0	0	0	45	0	0	0	3																											
3	Data analysis	30	2	15	0	0	15	0	0	15	0	0	15	0	0	2E																											
<b>C</b>	<b>Major subjects</b>	345	26	195	75	0	60	15	0	60	30	0	30	0	0	8	8	135	45	0	30	15	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1	Quantum mechanics	60	4	30	30	0	0	0	0	30	30	0	0	0	0	4E																											
2	Alternative sources of energy	45	3	30	0	0	0	15	0									30	0	0	0	15	0	3																			
3	Geometric methods in physics	30	2	15	0	0	15	0	0									15	0	0	15	0	0	2																			
4	Selected topics in modern physics	15	2	15	0	0	0	0	0									15	0	0	0	0	0	2																			
5	Condensed matter physics	45	4	30	15	0	0	0	0									30	15	0	0	0	0	4E																			
6	Modern optics	60	4	30	30	0	0	0	0									30	30	0	0	0	0	4E																			
7	Computer modeling	60	4	30	0	0	30	0	0	30	0	0	30	0	0	4E																											
8	Adaptive numerical methods	30	3	15	0	0	15	0	0									15	0	0	15	0	0	3																			
<b>D</b>	<b>Specialization subjects</b>	270	15	90	0	0	180	0	0	45	0	0	60	0	0	6	6	45	0	0	120	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1	Computer simulations in physics	60	4	15	0	0	45	0	0									15	0	0	45	0	0	4E																			
2	Three-dimensional modeling	45	3	15	0	0	30	0	0	15	0	0	30	0	0	3																											
3	Digital image processing	60	3	30	0	0	30	0	0	30	0	0	30	0	0	3																											
4	Computational methods	45	3	15	0	0	30	0	0									15	0	0	30	0	0	3																			
5	Application programming	60	2	15	0	0	45	0	0									15	0	0	45	0	0	2																			
<b>E</b>	<b>Subjects connected with degree certfic</b>	85	24	30	0	0	0	45	10	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	45	10	24					
1	Monograph lecture	30	4	30	0	0	0	0	0									30	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	4				
2	Diploma seminar	45	5	0	0	0	0	45	0																													5					
3	Diploma thesis	10	15	0	0	0	0	0	10																													15					
<b>F</b>	<b>Optional courses</b>	180	12	90	0	0	60	0	30	45	0	0	30	0	15	6	6	30	0	0	15	0	15	3														3					
1	Optional course 1	60	3	30	0	0	15	0	15	30	0	0	15	0	15	3																											
2	Optional course 2	60	3	30	0	0	15	0	15									30	0	0	15	0	15	3																			
4	Invited course 1	30	3	15	0	0	15	0	0	15	0	0	15	0	0	3																											
5	Invited course 2	30	3	15	0	0	15	0	0									15	0	0	15	0	0	3																			
<b>Total</b>		1060	90	465	120	45	315	60	55	180	75	45	135	0	30	30	30	210	45	0	165	15	15	30	75	0	0	15	0	0	15	0	0	15	0	0	0	30					
<b>Exams</b>				7										4										3										145									
		1060	90	7										4										3										145									

Letter "E" with the number of ECTS means exam

Legend: W - Lecture, C - Exercises, L - Laboratory, K - Computer laboratory, S - Seminar, P - Project