

PLAN OF REGULAR STUDIES, GRADUATE PROGRAMME
PLAN OF REGULAR STUDIES, SECOND CYCLE PROGRAMME
faculty: PHYSICS
COMMON SUBJECTS

REGULAR DAILY STUDIES – enrolment 2018/2019

page 1

Subject		Summary figures		Curriculum in respective semesters (hours per week)								
		Including:		I		II		III		IV		
		H	pt.	H	pt.	H	pt.	H	pt.	H	pt.	
A. GENERAL SUBJECTS												
1	English	Lc	30	2	2	2						
2	Selective subject*		30	2					2	2		
3	Selective subject in the field of humanities*		15	2			1	2				
4	Selective social science subject*		30	3					2	3		
B BASIC SUBJECTS												
5	Physics laboratory II	Lc	120	12	4	6	4	6				
C. FIELD SUBJECTS												
6	Elements of theoretical physics I	C	30	4	2	2						
7	Elements of theoretical physics I	L	15	1	2							
8	Solid state physics	C	30	7				2	3			
9	Solid state physics	L	30	2				2	4			
10	Applied statistical physics	C	30	5	2	2						
11	Applied statistical physics	L	30	2	3							
12	Quantum physics	C	45	7	3	4						
13	Quantum physics	L	30	2	3							
14	Nuclear and high energy physics	C	30	6				2	3			
15	Nuclear and high energy physics	L	30	2				2	3			
16	Introduction to atomic and molecular physics	C	30	7		2	4					
17	Introduction to atomic and molecular physics	L	30	2	3							
ELECTIVE SUBJECTS***												
18	Graduate seminar I	S	30	4					2	4		
19	Graduate seminar II	S	30	4							2	4
20	General seminar	S	30	4							2	4
21	Monographic lecture I	L	30	4				2	4			
22	Monographic lecture II	L	30	4						2	4	
23	MASTER'S THESIS			12								12
24	MAGISTER EXAMINATION										E	
Sum:			735	89	18	24	9	15	16	26	6	24
NUMBER OF EXAMINATIONS					1E	2E	3E	1E+	E			

Legend: L - lecture, T - Tutorials, Lab - laboratory, Pr - practice, S – seminar
The lecture courses are closed with an examination
Tutorials, laboratories and seminars — **credit and mark**

Examination is made
by a bold and underlined figure
H – hours per week
pt. - ECTS

Subjects:

Graduate seminar I, II, General seminar — **credit and mark.**

* - selective subjects,
** - specialty-related elective courses,
*** - elective courses within specialty

Selective subject*: University-wide elective courses or from another field of study (30 hours, 2 ECTS) - **credit without grade.**

Selective subject in the field of humanities*: Philosophy of nature / Humanistic subject from another faculty (15 hours, 2 ECTS) - **credit and mark.**

Selective social science subject*: Elements of economics / Social subject from another faculty (30 hours, 3 ECTS) - **credit and mark.**

Plan studiów zatwierdzono na Radzie Wydziału w dniu 24th April 2018
Zmiany wprowadzono:

PLAN OF REGULAR STUDIES, SECOND CYCLE PROGRAMME
faculty: PHYSICS, speciality: COMPUTER PHYSICS

REGULAR DAILY STUDIES – enrolment 2018/2019

page 2

Subject		Summary figures		Curriculum in respective semesters (hours per week)							
		Including:		I		II		III		IV	
		H	pt.	H	pt.	H	pt.	H	pt.	H	pt.
z przeniesienia ze str. 1:		735	89	16	24	10	15	17	26	6	24
D. SPECIALIZATION SUBJECTS**											
25	Advanced programming methods in C/C++ / Advanced programming methods in Python Lc	45	6	3	4						
26	Advanced programming methods in C/C++ / Advanced programming methods in Python L	15		1	2						
27	Applications of computer simulations Lc	30				2	3				
28	Applications of computer simulations L	30	6			2	3				
29	Unix OS programming Lc	30	3			2	3				
30	Symbolic programming in physical processes simulations Lc	30	3			2	3				
31	Scripting languages in data analysis Lc	30	3			2	3				
32	Internet applications programming Lc	30	4					2	2		
33	Internet applications programming L	15						1	2		
34	Quantum systems simulations Lc	30								2	3
35	Quantum systems simulations L	30	6							2	3
Sum:		1050	120	20	30	20	30	20	30	10	30
NUMBER OF EXAMINATIONS				2E		3E		4E		2E+	E

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PLAN OF REGULAR STUDIES, SECOND CYCLE PROGRAMME
faculty: PHYSICS, speciality: THEORETICAL PHYSICS

REGULAR DAILY STUDIES – enrolment 2018/2019

Subject		Summary figures		Curriculum in respective semesters (hours per week)							
		Including:		I		II		III		IV	
		H	pt.	H	pt.	H	pt.	H	pt.	H	pt.
z przeniesienia ze str. 1:		735	89	16	24	10	15	17	26	6	24
D. SPECIALIZATION SUBJECTS*											
25	Mathematical methods in physics Lc	30	6	2	4						
26	Mathematical methods in physics L	15		1	2						
27	Packages for symbolic computations Lc	30	3			2	3				
28	Computer simulations Lc	30				2	4				
29	Computer simulations L	30	7			2	3				
30	Elements of theoretical physics II C	30				2	3				
31	Elements of theoretical physics II L	15	5			1	2				
32	Quantum physics II C	30						2	2		
33	Quantum physics II L	15	4					1	2		
34	Field theory C	30								2	2
35	Field theory L	30	4							2	2
36	Elementary particle physics L	30	2							2	2
Sum:		1050	120	19	30	19	30	20	30	12	30
NUMBER OF EXAMINATIONS				2E		3E		4E		2E+	E

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PLAN OF REGULAR STUDIES, SECOND CYCLE PROGRAMME
faculty: PHYSICS, speciality: COMPUTER ASTROPHYSICS

REGULAR DAILY STUDIES – enrolment 2018/2019

page 3

Subject			figures		(hours per week)							
			Including:		I		II		III		IV	
			H	pt.	H	pt.	H	pt.	H	pt.	H	pt.
z przeniesienia ze str. 1:			735	89	16	24	10	15	17	26	6	24
D. SPECIALIZATION SUBJECTS**												
25	Astrophysics I	C	30	6	2	4						
26	Astrophysics I	L	15		<u>1</u>	2						
27	Astrophysics II	C	30	6			2	3				
28	Astrophysics II	L	30				<u>2</u>	3				
29	Extragalactic astronomy and cosmology	C	15	4			1	2				
30	Extragalactic astronomy and cosmology	L	15				1	2				
31	Astrophysics of compact objects	C	30	6							2	4
32	Astrophysics of compact objects	L	15								<u>1</u>	2
33	Modern radio astronomy	L	30	2					2	2		
34	High-energy astrophysics	L	30	2				<u>2</u>	2			
35	Radiative processes in astrophysics	C	45	5			3	3				
36	Radiative processes in astrophysics	L	30				<u>2</u>	2				
Sum:			1050	120	19	30	21	30	21	30	9	30
NUMBER OF EXAMINATIONS					2E		4E		4E		2E+	E

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PLAN OF REGULAR STUDIES, SECOND CYCLE PROGRAMME
faculty: PHYSICS, speciality: MEDICAL PHYSICS

REGULAR DAILY STUDIES – enrolment 2018/2019

page 3

Subject			Summary figures		Curriculum in respective semesters (hours per week)							
			Including:		I		II		III		IV	
			H	pt.	H	pt.	H	pt.	H	pt.	H	pt.
z przeniesienia ze str. 1:			735	89	16	24	10	15	17	26	6	24
D. SPECIALIZATION SUBJECTS**												
25	Dosimetry and quality control in medical physics	Lc	30	6	2	4						
26	Dosimetry and quality control in medical physics	L	15		<u>1</u>	2						
27	Packages for statistical analysis	Lc	30	3			2	3				
28	Medical image analysis algorithms	Lc	30	7			2	4				
29	Medical image analysis algorithms	L	30				<u>2</u>	3				
30	Mathematical methods in biophysics and medical physics	C	30	5			2	3				
31	Mathematical methods in biophysics and medical physics	L	15				1	2				
32	Elements of bioinformatics	Lc	30	4					2	2		
33	Elements of bioinformatics	L	15						<u>1</u>	2		
34	Elements of neuroscience	Lc	30	4							2	2
35	Elements of neuroscience	L	30								<u>2</u>	2
36	Elements of microbiology	L	30	2							2	2
Sum:			1050	120	19	30	19	30	20	30	12	30
NUMBER OF EXAMINATIONS					2E		3E		4E		2E+	E

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