# PLAN OF REGULAR STUDIES, FIRST DEGREE faculty: TECHNICAL PHYSICS, specialty - MEDICAL PHYSICS

REGULAR DAILY STUDIES - enrolment 2014/2015

page 1

		Summary	figures	(	Cur	ricul	lum	in res	spec	tive	sumi	mesters (hours per				week)			
Lp.	Subject		Including:			I II			III IV							VI		VII	
1	•		Н	pt.	Н	pt.	Н	pt.	Н	pt.	Н	pt.	Н	pt.	Н	pt.	Н	pt.	
	A. GENERAL SUBJECTS																		
1	English as a foreign language*	Lab	120	8			2	2	2	2	2	2	2	2					
2	Information technology	Lab	30	2	2	2													
3	Physical education*	T	30	1			2	1											
4	Ethics of medical professions	L	30	2											2	2			
5	Selective subject*		30	1											2	1			
	Intellectual property protection, occupational safety,	т	1.5										,						
6	ergonomics	L	15	1									1	1				i	
	B. BASIC SUBJECTS																		
7	Mathematical analysis I	T	60	10	4	5													
8	Mathematical analysis I	L	60	10	4	5													
9	Mathematical analysis II	T	45				3	3											
10	Mathematical analysis II	L	30	5			2	2											
11	Algebraic and geometrical methods in physics	T	30		2	3													
12	Algebraic and geometrical methods in physics	L	15	5	1	2													
13	Fundamentals of physics I - Mechanics	T	45	_	3	4													
	Fundamentals of physics I - Mechanics	L	45	8	3	4													
15	Fundamentals of physics II - Thermodynamics	T	30				2	2											
	Fundamentals of physics II - Thermodynamics	L	30	4			2	2											
	Fundamentals of physics III - Electricity and magnetism	T	45	,					3	4									
	Fundamentals of physics III - Electricity and magnetism	L	30	6					2	2									
	Fundamentals of physics IV - Optics, modern physics	T	45								3	4							
	Fundamentals of physics IV - Optics, modern physics	L	30	6							2	2							
_	Chemistry	L	30	2			2	2											
22	Foundations of programming in C++ / Introduction to scripting languages*	Lab	45	_			3	4											
23	Foundations of programming in C++ / Introduction to scripting languages*	L	30	6			2	2											
	C. FIELD SUBJECTS																		
		- T			_	_													
24	Metrology  Dhysica laboratory I. Machanica thermodynamics	T	15	2	_	2	_	4											
	Physics laboratory I - Mechanics, thermodynamics	Lab	45	4		<u> </u>	3	4	_	_									
	Physics laboratory I - Electricity and magnetism	Lab	45	4					3	4	_	_							
27	Physics laboratory I - Optics, modern physics	Lab	45	4		<u> </u>					3	4							
1	Electronics and electrotechnology - Fundamentals of electronic																	ì	
28	circuits / Electrotechnology and electronics - Foundations of	Lab	30								2	3						ì	
	the construction of measuring devices*			5															
	Electronics and electrotechnology - Fundamentals of electronic			3														ì	
29	circuits / Electrotechnology and electronics - Foundations of	L	30								2	2						ì	
	the construction of measuring devices*																	ì	
30	Elements of technical physics	Ć	30	_					2	3									
31	Elements of technical physics	L	30	5					2	2									
32	Engineering graphics	Lab	30	_									2	3					
33	Engineering graphics	L	30	5									2	2					
34	Mathematical methods for engineers	T	45	_					3	3									
35	Mathematical methods for engineers	L	30	5					2	2									
36	Elements of quantum physics	T	30	5									2	3					
37	Elements of quantum physics	L	30	3									2	2					
38	Solid state physics for engineers	T	30	6											2	3			
39	Solid state physics for engineers	L	30	0											2	3			
	TOTAL		1425	112	20	27	23	24	19	22	14	17	11	13	8	9	0	(	

Legend: L - lecture, T - tutorial, Lab - laboratory, P - project Pr - practice, S - seminar

The lecture courses are closed with an examination tutorials, laboratories, projects, seminars — credit and grade

Examination is maked by a bold and underlined figure

H – hours per week

pt. - ECTS

#### \* - Selective subjects

**Lectures:** Ethics of medical professions, Chemistry, Foundations of programming in C++ / Introduction to scripting languages, Mathematical methods of physics for engineers, Engineering graphics - **grade**.

 $Intellectual\ property\ protection,\ occupational\ safety,\ ergonomics,\ Physical\ education\ \textbf{-}\ \textbf{credit}\ \textbf{without}\ \textbf{grade}$ 

English as a foreign language after each semester — credit and grade.

Selective subject\*: Language culture / Practical language communication /University-wide elective courses or from another field of study (min 30 hours) - credit without grade

Plan studiów zatwierdzono na Radzie Wydziału w dniu 11 marca 2014 r. Zmiany wprowadzono: 15 kwietnia 2014 r., 17.06.2014 r.

## PLAN OF REGULAR STUDIES, FIRST DEGREE

## faculty: TECHNICAL PHYSICS, specialty - MEDICAL PHYSICS

REGULAR DAILY STUDIES - enrolment 2014/2015

page 2

			Summary	Summary figures Curriculum in respective summesters (hours per														
Lp.	Subject	Including:		_	I II			III IV				V		VI		_	П	
1 .			H	pt.		pt.			Н		Н	pt.		pt.		pt.	Н	pt.
	continued from page 1		1425	112	20	27	23	24	19	22	14	17	11	13	8	9	0	0
	D. SPECIALIST SUBJECTS																	
40	Introduction to biology and medical biology	L	30	3	2	3												
	Computer data processing	L	30	2			2	2										
	Human anatomy and physiology I	L	45	4			3	4										
43	Human anatomy and physiology II	L	45	4					3	4								
44	Elements of medical statistics / Analysis of medical data in R*	Т	30	7					2	2								
45	Elements of medical statistics / Analysis of medical data in R*	L	30	,					<u>2</u>	2								
	Elements of medical statistics / Analysis of medical data in R*	Lab	30								2	3						
	Biophysics	T	30	5							2	3						
	Biophysics	L	30								2	2						
	Biophysics and biochemistry laboratory	L	30	3									2	3				
	Medical instruments, imaging and diagnostics I	L	30	5							2	3						
	Medical instruments, imaging and diagnostics I	L	30	3							2	2						
	Medical instruments, imaging and diagnostics II	P	15	7									1	3				
	Medical instruments, imaging and diagnostics II	Lab	15	,									1	2				
	Medical instruments, imaging and diagnostics II	L	30										2	2				
	Signal analysis	L	30	9									2	3				
	Signal analysis	L	30	,									2	2				
	Signal analysis	P	30												2	4		
	Radiation protection	L	30	2									2	2				
	Physics in nuclear medicine	Lab	30	5											2	3		
	Physics in nuclear medicine	L	15												1	2		
	Psychology of relations with patients	L	30	3													2	3
	Elements of medical rescue	Lab	30	2											2	2		
	Professional practice*	Pr		6		Ш												6
	Engineering project - imaging, diagnostics*	P	30	5		Ш									2	5		
	Specialist lecture*	L	30	6													2	6
	Seminar*	S	30	5											2	5		
	Bachelor thesis seminar*	S	30	7		Ш											2	7
	Bachelor thesis*			8														8
69	Licenciate examination								<u> </u>									<u>E</u>
	TOTAL: D		795	98	2	3	- 5	6	7	8	10	13	12	17	11	21	6	30
	Total: A + B + C + D		2220	210	_	30		30	_	30		30	23	30		30	6	
	Number of examinations:				<b>4</b> E		3E		4E		4E		3E		3E		1E+	1E

Examination is maked by a bold and underlined figure

H – hours per week
pt. - ECTS

#### \* - Selective subjects

Lectures: Biophysics, radiation protection, Psychology of relations with patients - credit and grade Bachelor thesis - credit

Professional practice after the 6th semester, 4 weeks, credit in semester VII