

DESCRIPTION OF THE COURSE OF STUDY

Course code		
Name of the course in	Polish	Pracownia podstaw fizyki
	English	Fundamentals of Physics Laboratory

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	Technical physics
1.2. Mode of study	Full-time
1.3. Level of study	1 st degree
1.4. Profile of study	General academic
1.5. Person/s preparing the course description	Dr Małgorzata Wysocka-Kunisz
1.6. Contact	malgorzata.wysocka-kunisz@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	English
2.2. Prerequisites	-

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	laboratory	
3.2. Place of classes	Courses in the UJK teaching rooms of the Faculty of Exact and Natural Science	
3.3. Form of assessment	Credit with grade	
3.4. Teaching methods	demonstration, measurement, practical exercises, laboratory classes	
3.5. Bibliography	Required reading	1. R. Resnick, D. Halliday, Fizyka, t.1-5 Textbooks for advanced physics in high schools
	Further reading	1. M. Halaunbrenner, Ćwiczenia praktyczne z fizyki. Kurs podstawowy, WSiP, Warszawa 1976 2. M. Halaunbrenner, Ćwiczenia praktyczne z fizyki. Kurs średni, WSiP, Warszawa 1982 3. I. Antipin, Zadania doświadczalne z fizyki. Kurs podstawowy, WSiP, Warszawa 1986

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

4.1. Course objectives (including form of classes)
<p>Knowledge (lectures and laboratories) C1. Student knows how to analyse the laboratory results, and learns how to write laboratory reports.</p> <p>Abilities (laboratories and project) C2. Student learns how to prepare, execute, and interpret the results of laboratory experiments. C3. Understanding and explaining basic physical phenomena and consolidation of knowledge in the field of basic physics.</p>

4.2. Detailed syllabus (including form of classes)
<p>Laboratories: The teacher will introduce selected theories on basic physical laws and phenomena, as well as conduct their practical demonstrations. The course material covers basics of kinematics, dynamics, thermodynamics, structure of matter, electricity, magnetism, and electromagnetic waves.</p>

4.3. Education outcomes in the discipline		
Code	A student, who passed the course	Relation to learning outcomes
within the scope of KNOWLEDGE:		
W01	Student knows how to analyse the laboratory results, and learns how to write laboratory reports	FIZT1_W01 FIZT1_W04
within the scope of ABILITIES:		
U01	Student learns how to prepare, execute, and interpret the results of laboratory experiments.	FIZT1_U03 FIZT1_U04 FIZT1_U05
U02	Understanding and explaining basic physical phenomena and consolidation of knowledge in the field of basic physics.	FIZT1_U03 FIZT1_U04 FIZT1_U05

4.4. Methods of assessment of the intended learning outcomes																					
Teaching outcomes (code)	Method of assessment (+/-)																				
	Oral answer			Project			Self-study			Group work			Report								
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes		
	L	C	P	L	C	P	L	C	P	L	C	P	L	C	P	L	C	P	L	C	P
W01	+						+			+			+								
U01	+									+			+								
U02	+									+			+								

4.5. Criteria of assessment of the intended learning outcomes		
Form of classes	Grade	Criterion of assessment
project (P)	3	at least 50% and not more than 60% of the total number of available points
	3,5	more than 60% and not more than 70% of the total number of available points
	4	more than 70% and not more than 80% of the total number of available points
	4,5	more than 80% and not more than 90% of the total number of available points
	5	more than 90% of the total number of available points

5. BALANCE OF ECTS CREDITS – STUDENT’S WORK INPUT

Category	Student's workload	
	Full-time studies	Extramural studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>		
Participation in lectures		
Participation in laboratories/project	30	
Preparation for the exam		
Others		
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>		
Preparation for the lecture		
Preparation for the laboratories	10	
Preparation for the exam		
Gathering materials for the project	5	
Preparation of multimedia presentation		
Others*	5	
TOTAL NUMBER OF HOURS	50	
ECTS credits for the course of study	2	

Accepted for execution (date and signatures of the teachers running the course in the given academic year)

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