Zał. nr 4 do ZW 64/2012

FACULTY OF COMPUTER SCIENCE AND MANAGEMENT

SUBJECT CARD

Name in Polish **Fizyka 3.1**
Name in English **Physics 3.1**
Main field of study **Computer Science**
Specialization (if applicable): ……..
Level and form of studies: **1st level, full-time**
Kind of subject: **obligatory , university-wide**
Subject code FZP8010L
Group of courses NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)			15		
Number of hours of total student workload (CNPS)			60		
Form of crediting	Examination / crediting with grade*	Examination / crediting with grade*	Crediting with grade	Examination / crediting with grade*	Examination / crediting with grade*
For group of courses mark (X) final course					
Number of ECTS points			**2**		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points for direct teacher-student contact (BK) classes			1,2		

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

A student of the course has a knowledge acquired from the first courses of Mathematical Analysis, Algebra and Physics 1.1B

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SUBJECT OBJECTIVES

C1 Acquiring skills of making of simple experiment
C2 Develop skills of making of a written report from the measurements
C3 Develop skills of estimation of measurement uncertainty

SUBJECT EDUCATIONAL EFFECTS

Student

relating to knowledge:

PEK_W01 knows methods for basic physical measurement

PEK_W02 is familiar with the health and safety regulations in force in the laboratory introductory physics.

PEK_W03 knows methods of preparing of a written report from the measurements and estimation of measurement uncertainty of simple and complex physical quantities

relating to skills:

PEK_U01 can use simple measuring devices to measure physical quantities

PEK_U02 is able to perform simple and complex measurements of physical quantities using the manual of the measurement system.

PEK_U03 knows how prepare the results of the measurements, analyze uncertainty in measurement and prepare a report with measurements made in LPF using computer tools (word processors, office suites, computing environments).

relating to social competences:

PEK_K01 - reinforces teamwork skills

PEK_K02- understands the need for self-study

PEK_K03- strengthens the skills of a reliable and responsible tasks

PROGRAMME CONTENT

	Form of classes - laboratory	Number of hours
Lab 1	Introduction to LPF: issues of organization and conduct of classes, to familiarize students with: a) the safety rules for measurements (short health and safety training), b) how to prepare writing reports, c) the basics of the measurement uncertainty analysis. Carrying out simple measurements.	1
Lab 2	Making measurements using analog and digital gauges. Statistical processing of simple and complex results of measurements , estimation of measurement uncertainty, graphical presentation of the results of measurements and measurement uncertainty, the development of the report.	2
Lab 3	Making measurements of selected physical quantities, developing reports	2
Lab 4	Making measurements of selected physical quantities, developing reports	2
Lab 5	Making measurements of selected physical quantities, developing reports	2
Lab 6	Making measurements of selected physical quantities, developing reports	2
Lab 7	Making measurements of selected physical quantities, developing reports	2
Lab 8	Suplementarny classes, crediting, repetitory	2
	Total hours	15

TEACHING TOOLS USED

N1. Self-study – preparation for exercise
N2. Written tests before measurements
N3. Independent execution of the experiment
N4. Website laboratory information on laboratory regulations, safety regulations, census exercise, exercise description, work instructions, sample reports, teaching aids
N5. Consultation

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F – forming (during semester), P – concluding (at semester end)	Educational effect number	Way of evaluating educational effect achievement
F1	PEK_U01-U03	Oral answers, discussions, written tests, evaluation of each report
P = F1		

PRIMARY AND SECONDARY LITERATURE

PRIMARY LITERATURE:

[1] Ćwiczenia Laboratoryjne z Fizyki, Tomy 1-4, Oficyna Wydawnicza Politechniki Wrocławskiej (dostępne wraz z instrukcjami roboczymi na stronie http://lpf.wppt.pwr.edu.pl/
[2] LPF webside: http://lpf.wppt.pwr.edu.pl/

SECONDARY LITERATURE:

[1] D. Halliday, R. Resnick, J.Walker: *Podstawy Fizyki*, tomy 1-2, 4, Wydawnictwa Naukowe PWN, Warszawa 2003.
[2] I.W. Sawieliew, Wykłady z Fizyki tom1 i 2 , Wydawnictwa Naukowe PWN, Warszawa, 2003.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT

Physics 3.1

AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY

Computer Science

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
PEK_W01	K1INF_WO3	C1	La1-La8	N1,N2,N3,N4,N5
PEK_W02	K1INF_WO3	C2-C3	La1-La8	N1,N2,N3,N4,N5
PEK_W03	K1INF_WO3	C2-C3	La1-La8	N1,N2,N3,N4,N5
PEK_U01	K1INF_U07, K1INF_U14, K1INF_U16	C1	La1-La8	N1,N2,N3,N4,N5
PEK_U02	K1INF_U07, K1INF_U14, K1INF_U16	C1	La1-La8	N1,N2,N3,N4,N5
PEK_U03	K1INF_U07, K1INF_U14, K1INF_U16	C2-C3	La1-La8	N1,N2,N3,N4,N5
PEK_K01	K1INF_K01, K1INF_K03	C3	La1-La8	N1,N2,N3,N4,N5
PEK_K02	K1INF_K01, K1INF_K03	C3	La1-La8	N1,N2,N3,N4,N5
PEK_K03	K1INF_K01, K1INF_K03	C3	La1-La8	N1,N2,N3,N4,N5

** - enter symbols for main-field-of-study/specialization educational effects

*** - from table above