University of Gdańsk

Subject card

Subject name and code	Physics - laboratory exercises, PG_00091098		
Field of study	Geology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	Bachelor's studies	Subject group	
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr Aleksandra Malecha-Łysakowska	
	Teachers	mgr Aleksandra Malecha-Łysakowska	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	15.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	5.0	9.0	29

Subject objectives

To provide the knowledge and develop the skills necessary to:
- use the apparatus of higher mathematics to describe physical phenomena and to interpret the mathematical solutions obtained physically;
- to make observations of nature and to collect, analyse and interpret data.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences	knows and understands physical terminology	[SW1] oral statement/ conversation/discussion
[GEOLL3_K05] is willing to comply with the principles of occupational safety and health, takes care of specialized equipment entrusted to them, is aware of the risk connected with the performed work	Willing to comply with health and safety regulations, take care of the special equipment entrusted to him/her, aware of the risks of the work he/she carries out. work	[SK6] demonstration of practical skills [SK7] entries and opinions in the internship diary
[GEOLL3_U01] is able to apply basic measurement and analytical techniques in the field and in the laboratory, plans to conduct research and measurements	can apply basic measurement and analysis techniques used in physics	[SU8] observation of student's independent or team work
[GEOLL3_W08] knows the basic principles of occupational health and safety, legal regulations conditioning geological and engineering activities	knows the basic principles of health and safety in the physics laboratory	[SW2] presentation/project/paper/ report

Subject contents

Laboratory measurements and their precision. Statistical treatment of data. Laboratory exercises on all topics covered in lectures

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Arithmetic mean of partial scores	51.0%	100.0%

Recommended reading	Basic literature	Halliday D., Resnick R., Walker J., 2007. Podstawy fizyki - tom 1. Mechanika. Wyd. Naukowe PWN, Warszawa Halliday D., Resnick R., Walker J., 2007. Podstawy fizyki - tom 2. Mechanika, drgania i fale, termodynamika, Wyd. Naukowe PWN, Warszawa Halliday D., Resnick R., Walker J., 2007. Podstawy fizyki - tom 3. Elektryczność i magnetyzm, Wyd. Naukowe PWN, Warszawa Halliday D., Resnick R., Walker J., 2007. Podstawy fizyki - tom 4. Fale elektromagnetyczne, optyka i teoria względności, Wyd. Naukowe PWN, Warszawa Halliday D., Resnick R., Walker J., 2007. Podstawy fizyki - tom 5. Fizyka współczesna, Wyd. Naukowe PWN, Warszawa Orear J., 2008. Fizyka, t. 1 i 2, Wyd. WNT, Warszawa
	Supplementary literature	Walker J., 2011. Podstawy fizyki. Zbiór zadań, Wyd. Naukowe PWN, Warszawa Hewitt P. G., 2010. Fizyka wokół nas, Wyd. Naukowe PWN, Warszawa Resnick R., Halliday D., 1999. Fizyka (cz. 1 i 2), Wyd. Naukowe PWN, Warszawa
	eResources addresses	
Example issues/ example questions/ tasks being completed	Dynamics: 1. coefficient of friction; 2. mathematical pendulum. Heat: 3. specific heat; 4. the time constant of a thermometer. Selected macroscopic properties of matter: 5. speed of sound; 6. gas constant.	
Work placement	Not applicable	

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