University of Gdańsk

Subject card

Subject name and code	Study Planning and Data Analysis - laboratory , PG_00204960						
Field of study	Oceanography						
Date of commencement of studies	October 2027		Academic year of realisation of subject	2027/2028			
Education level	Master's studies		Subject group	Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	1		ECTS credits	5.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Bożena Graca, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	60.0	0.0	0.0	60
	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	60		4.0		61.0	125
Subject objectives	To prepare the student to independently statistically process and describe the results of environmental and laboratory studies and to plan research in line with the scientific objectives set.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANMU2-W05] knows and understands the principles of planning and conducting field and laboratory research as well as advanced methods and tools of scientific research, especially in the field of the studied specialty	has an in-depth knowledge and understanding of the principles of planning and conducting research on the marine environment and of the statistical methods used to describe and interpret biogeochemical phenomena and processes occurring in the aquatic environment	[SW4] test/exam - oral or written [SW3] text preparation/written work
[OCEANMU2-U03] can plan and carry out independently advanced research and measurements, both in field and laboratory, using appropriately selected measurement and analytical techniques in the field of oceanography, adequately to the studied specialty and research problem	can process, describe and present research findings and formulate conclusions based on them can use applications and specialised software, as well as mathematical and statistical methods in the presentation of results and the analysis of data	[SU3] text preparation/written work
[OCEANMU2-K03] is ready to effectively organize his/her own work, is active and persistent and punctuality in completing tasks, is ready to carrying out evaluation of their own activities	Is willing to organise its work effectively	[SK4] test/exam - oral or written
[OCEANMU2-U05] is able to use source information in Polish and a chosen foreign language, including archival and electronic databases, within the field of oceanography; critically analyzes and synthesizes information, and is capable of performing critical interpretation and synthesis of data	Is prepared to exercise caution and criticism in accepting information from scientific literature, the internet and other media relating to marine science	[SU4] test/exam - oral or written

Subject contents

B1. Database preparation
B2. Graphical presentation of data
B.3 Choice of statistical methods and principles of their application vs. how to design a study
B4. Statistical inference

Prerequisites and co-requisites

Fundamentals of statistics

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	51.0%	100.0%

Recommended reading

Basic literature	A.1. Andrzej Stanisz, Przystępny kurs statystyki z zastosowaniem STATISTICA na przykładach z medycyny.(tom I, II i III), wydawca StatSoft Polska, łącznie 1900s.
Supplementary literature	Internetowy podręcznik statystyki (http://www.statsoft.pl/textbook/stathome.html) Radosław Kala, Statystyka dla przyrodników, Wydawnictwo Uniwersytetu Przyrodniczego w Poznaniu (wydanie III) 234s.
eResources addresses	

Example issues/ example questions/ tasks being completed

Development of a set of results from environmental and/or experimental studies

Work placement

Not applicable

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