

Subject card

Subject name and code	Information technology - laboratory exercises, PG_00054237						
Field of study	Oceanography						
Date of commencement of studies	October 2025	Academic year of realisation of subject			2025/2026		
Education level	Bachelor's studies	Subject group			Obligatory subject group 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			2.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Laboratory of Physical Oceanography -> Department of Physical Oceanography and Climate Research -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Wojciech Brodziński				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30		15.0		30.0	75
Subject objectives	Standardize the level of knowledge among students regarding the use of basic data analysis and presentation tools. Prepare students to use basic information technologies as required by other subjects in the study program.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OCEANL3-K03] is ready to exercise caution and criticism in accepting information from scientific literature, the Internet and other media relating to natural sciences	Tests practical solutions to problems related to the use of information technology for oceanographic data analysis. Begins to use artificial intelligence methods to solve the previously mentioned problems, critically evaluating obtained results. Learns to use the documentation of the software used.	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
	OCEANL3-U11	Performs practical tasks related to the use of information technology, following the instructions provided during the classes, utilizing worth other students the available files' and resources-sharing options. Plans own's work so that it is delivered on time.	[SU1] oral statement/conversation/discussion [SU8] observation of student's independent or team work
	OCEANL3-U05	Uses a range of basic tools and techniques originating from information technology that are used for analyzing and presenting oceanographic data. Works with datasets of various types and uses the best tools for their analysis and presentation.	[SU5] implementation of a problem task [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[OCEANL3-K01] is willing to plan and implement, individually or as a team, the subsequent stages of the entrusted task, is willing to take responsibility for the results of these works, effectively cooperates in the team and performs various roles in it	Independently and in teams, performs practical tasks related to the use of information technology, demonstrating responsibility for the assigned elements of the task.	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	OCEANL3-U04	Familiarizes oneself with exemplary oceanographic databases and learns to search through them. Expands knowledge about databases with specialized literature and searches them using information technology.	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	OCEANL3-W05	Learns a range of tools and techniques based on information technology that are used to analyze and present data in oceanography. Learns to work with datasets of various types and uses the best tools for their analysis and presentation. Learns office suite tools - principles of text editing, document editor functions, and spreadsheet functions.	[SW2] presentation/project/paper/report [SW5] implementation of a problem task
Subject contents	Using basic office suite tools. Spreadsheets, including various methods of data visualization. Working with text editors. Tools for preparing presentations. Selecting the best methods of presenting data based on its type and using this knowledge to present information on a selected topic to a group. Fundamentals of programming using the Python language.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Completion of partial tasks (homework, short tests, presentation)	51.0%	60.0%
	Test	51.0%	40.0%

Recommended reading	Basic literature	Wilson B. (1992): Information Technology: The Basics. Macmillan Publishers Limited 1992. https://doi.org/10.1007/978-1-349-12525-8 Przeździecki K., Sikorski W., Treichel W., Technologie informacyjne dla studentów, WITKOM, Warszawa, 2017 (in polish) Wrycza S., Maślankowski J. (red.), Informatyka ekonomiczna, PWN, Warszawa 2019 (in polish) Kawa R., Lembas J., Wstęp do informatyki, PWN, Warszawa, 2017 (in polish)
	Supplementary literature	Żarowska-Mazur A., Węglarz W. (red.), ECDL Advanced na skróty. Edycja 2015, Warszawa: Wydawnictwo Naukowe PWN, 2015 (in polish) Walkenbach J., Microsoft Excel 2016 PL. Biblia, Helion, Gliwice 2016 (in polish) Bernstein J. (2018): Computers Made Easy. From Dummy To Geek. Independently published www.python.org
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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