

Subject card

Subject name and code	Application of computers in marine geology, PG_00054570						
Field of study	Oceanography						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2025/2026	
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	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Dominik Pałgan				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	45.0	0.0	0.0	45
	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	45		30.0		55.0	130
Subject objectives	To familiarise the student with the computer software used in marine geology and to use it skilfully						
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 techniques, research methods and computer programmes (mathematical, statistical, IT) used in planning and re-launching the investigations carried out by a marine geologist (B.1-B.4)			[SW3] text preparation/written work [SW5] implementation of a problem task	
	[OCEANMU2-U06] can use specialized computer software and advanced mathematical and statistical methods in data analysis and description of processes and phenomena occurring in the marine environment and coastal zone		is able to use specialised and off-the-shelf computer software and mathematical and statistical methods in the analysis of data and the description of phenomena and processes occurring on the seabed and the coastal zone (B.1-B.4)			[SU3] text preparation/written work [SU5] implementation of a problem task	

Subject contents	B1. Use of available oceanographic software to analyse and synthesise geological phenomena directly relevant to the bathymetry of the study area B2. Use of available geological databases for scientific studies B3. Production of original graphic elements in scientific studies B4. Selection of appropriate software for scientific studies		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Completion of assignments	51.0%	100.0%
Recommended reading	Basic literature	Urbański J (2012) GIS w badaniach przyrodniczych. University of Gdańsk, Gdańsk M. Klischies et al., (2019), Geological mapping of the Menez Gwen segment at 37°50N on the Mid-Atlantic Ridge: Implications for accretion mechanisms and associated hydrothermal activity at slow-spreading mid-ocean ridges, Mar. Geol.	
	Supplementary literature	https://www.geomapapp.org Ryan, W. B. F., S.M. Carbotte, J. Coplan, S. O'Hara, A. Melkonian, R. Arko, R.A. Weissel, V. Ferrini, A. Goodwillie, F. Nitsche, J. Bonczkowski, and R. Zemsky (2009), Global Multi-Resolution Topography (GMRT) synthesis data set, <i>Geochem. Geophys. Geosyst.</i>, 10, Q03014, doi:10.1029/2008GC002332	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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