

Subject card

Subject name and code	Specialization workshops at sea in the field of geological and physico-chemical oceanography - field exercises, PG_00157814						
Field of study	Oceanography						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	undergraduate 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	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		3.0		
Learning profile	academic		Assessment form				
Conducting unit	Katedra Oceanografii Chemicznej i Geologii Morza -> Faculty of Oceanography and Geography						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Ewa Szymczak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	40.0	0.0	0.0	0.0	40
	E-learning hours included: 0.0						
	Additional information:						
	individual and team workfield and laboratory measurements/analyses						
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	40		10.0		20.0	70
Subject objectives	The aim of the course is to develop the student's skills in conducting oceanographic research, cooperating in a research team. In addition, to planning and conducting research and performing basic analyses in chemical, physical oceanography and marine geology using oceanographic instruments and equipment.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	OCEANL3-U03	is able to analytically and synthetically prepare the results of tests and analyses and to make correct conclusions on the basis of them	[SU2] presentation/project/paper/report [SU3] text preparation/written work
	OCEANL3-W02	knows and understands geological, physical and chemical phenomena and explains how they relate to processes in the marine environment	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work [SW5] implementation of a problem task
	OCEANL3-W07	knows and understands the applicable health and safety rules for the oceanographer at sea and in the laboratory	[SW1] oral statement/conversation/discussion [SW5] implementation of a problem task
	[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	is ready to follow the steps of a given task, takes responsibility for its results and interacts effectively in a team with different roles	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
	OCEANL3-W05	has an advanced understanding of the basic techniques, research methods and statistical tools used in geological, physical and chemical oceanography to describe and interpret processes in the sea	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work [SW5] implementation of a problem task
	OCEANL3-W03	knows and understands to an advanced level the relationships and dependencies between animate and inanimate elements of the marine environment, understands their natural variability and dynamics	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work [SW5] implementation of a problem task
	OCEANL3-U05	is able to use specialised computer software and statistical methods in data analysis and description of processes occurring in the marine environment in the field of geological, physical and chemical oceanography	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	OCEANL3-U02	is able to make observations and conduct basic research and measurements in the field of geological, physical and chemical oceanography individually and in teams, selecting appropriate measurement and analytical techniques	[SU2] presentation/project/paper/report [SU3] text preparation/written work [SU5] implementation of a problem task [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[OCEANL3-K05] is willing to take responsibility for the safety of his/her own and others' work, is aware of the risks and threats resulting from the work performed	is ready to be responsible for the safety of his own work and that of others, to take care of the specialised equipment entrusted to him, and is aware of the risks and hazards of working in the field and laboratory	[SK2] presentation/project/paper/report [SK3] text preparation/written work [SK8] observation of student's independent or team work
	OCEANL3-U11	is able to work individually as well as cooperatively in laboratory and field groups in a variety of roles and tasks	[SU2] presentation/project/paper/report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work

Subject contents	The fieldwork will be carried out within the same research field. They will be interdisciplinary in nature, allowing for planning, measurement and analysis in physical oceanography, chemical oceanography and marine geology. The interdisciplinary approach to the research task will make it possible to identify, describe and understand the basic phenomena occurring in the marine environment, based on the relationships between the physical and chemical parameters of the environment and the geological characteristics of the study area. B.1 Chemical oceanography: 1. Determination of the concentration of selected nutrients in seawater 2. Analysis of the variability of nutrient concentrations in the water column in relation to thermal and salinity stratification and biogeochemical processes in the sea. B.2 Physical oceanography: 1. Bathymetric measurements of the study area, using hydroacoustic apparatus 2. Analysis of thermohaline structure, water transparency and measurements of the vertical profile of top-down illumination spectra. B.3 Marine geology 1. Characterisation of bottom morphology and relief using hydroacoustic apparatus. 2. Interpretation of sedimentary environments based on analysis of disturbed and intact bottom sediments.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	partial grades from reports	51.0%	100.0%
Recommended reading	Basic literature	J. Bolątek (ed), 2010 Physical, biological and chemical studies of marine bottom sediments. Wydawnictwo UGPuck Bay. Volume I. Geological and Physical Aspects, eds. Jerzy Bolątek, Dorota BurskaPuck Bay. Volume II. Chemical Aspects, eds. Jerzy Bolątek, Dorota Burska	
	Supplementary literature	Literature updated on an ongoing basis depending on the location of the testing ground	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	provided by trainers		
Work placement	Not applicable		

Document generated electronically. Does not require a seal or signature.