University of Gdańsk

Subject card

Subject name and code	Field Classes at Sea and in the Coastal Zone, PG_00206211		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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	2	ECTS credits	4.0
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	mgr Marta Misiewicz	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	70.0	0.0	0.0	0.0	70

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	70	4.0	26.0	100

Subject objectives	Students are expected to acquire the ability to plan and conduct physical mesurements at sea

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OCEANMU2-U04] is ready to develop in an analytical and synthetic way research and analysis results and based on them creating conclusions	is able to analyse, summarise and evaluate the results of field measurements, surveys and analyses and to present conclusions	[SU2] presentation/project/paper/ report
	[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	is able to plan and conduct observations, surveys, field and laboratory measurements, measurements in the sea, uses appropriately selected and calibrated apparatus and appropriate procedures.	[SU2] presentation/project/paper/ report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[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 field and laboratory research and of the techniques, research methods and statistical tools used in the work of an oceanographer to describe and interpret marine phenomena and processes	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
	[OCEANMU2-U11] is able to work individually and cooperate in laboratory and field groups, performs various functions in them, including managerial ones, performs various assigned tasks	is able to carry out given tasks individually and in cooperation in laboratory and field groups, research teams	[SU2] presentation/project/paper/ report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[OCEANMU2-K05] is ready to follow the rules occupational health and safety, taking care of the entrusted person specialized and recognition equipment emergency situations and take appropriate action activities	is prepared to comply with health and safety rules, to take care of the apparatus provided for field, offshore and laboratory measurements	[SK6] demonstration of practical skills [SK8] observation of student's independent or team work
	[OCEANMU2-W08] knows and understands safety and hygiene rules oceanographer's work in the laboratory, in the sea and in the costline zone and on the ship	knows the basic health and safety rules for the oceanographer in the laboratory, on board the research vessel and in the field	[SW1] oral statement/ conversation/discussion
	[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 able to use source information in describing and interpreting research results	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
	[OCEANMU2-U06] is able to use specialized computer software as well as advanced mathematical and statistical methods to analyze data and describe processes and phenomena occurring in the marine and coastal environment; evaluates their reliability and usefulness and performs critical analysis	is able to use specialised computer software and statistical methods in data analysis and description of phenomena and processes in the marine environment	[SU2] presentation/project/paper/ report [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[OCEANMU2-K01] is ready to plan, implement and supervise, individually or collectively, next stages of the entrusted task, is ready to take responsibility for its results;	is prepared to plan, supervise and punctually deliver individual and group tasks, feels responsible for the results and effects of the work undertaken	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report [SK8] observation of student's independent or team work

<table>
<tr><td>Subject contents</td><td>1. Health and Safety regulations and practicalities of on-board work.
2. Operation of measurement instruments used for in situ studies of physical properties of seawater and the seabed.
3. Execution of a project based on several days of observations in a selected area of the Puck or Gdańsk Bay.
4. Advanced methods used in the study of physical processes in the sea. Utilization of measurement devices/samplers depending on the planned research, including: CTD probe, acoustic current meter, hydroacoustic devices, autonomous underwater vehicle, bathymetric rosette, automatic meteorological station, sediment samplers, and others.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>conducting measurements in a correct, effectve and safe way</td><td>51.0%</td><td>20.0%</td></tr>
<tr><td>Shipboard research cruise report</td><td>51.0%</td><td>70.0%</td></tr>
<tr><td>contribution to on-board discussions</td><td>51.0%</td><td>10.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>• Burska, D., Bolałek J. (red), 2022. Zatoka Pucka, 2022, Tom I. Aspekty geologiczne i fizyczne.
• K. Korzeniewski, 1993. Zatoka Pucka
• Majewski A. (red) 1990. Zatoka Gdańska,
• Thomson R.E, Emery W., 2024. Data analysis methods in physical oceanography. Elsevier, Amsterdam.</td></tr>
<tr><td>Supplementary literature</td><td>Literature updated continuously depending on the location of the research site.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Using available measurements, identify water density anomaly and a possible fresh water intrusion</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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