

Subject card

Subject name and code	Hydrographic survey operations lecture, PG_00131492						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Subject group related to practical vocational preparation		
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		1.0		
Learning profile	practical		Assessment form		exam		
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 Jakub Idczak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	0.0	0.0	0.0	20
	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	20		1.0		9.0	30
Subject objectives	To impart knowledge regarding the principles and requirements for planning and conducting hydrographic measurement work, in accordance with national and international regulations.						
	To master the skills necessary for planning and directing hydrographic work at sea and in ports, using various devices and measurement systems.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[HML3-K02] correctly determine the priorities in professional work for the implementation of a task specified by himself/ herself or others	Independently organizing, planning, and directing the work of various measurement teams.	[SK4] test/exam - oral or written
	[HML3-U14] use the applicable terminology in presenting and discussing problems related to the field of study	To correctly use the applicable terminology when presenting and discussing issues related to hydrography.	[SU4] test/exam - oral or written
	[HML3-U04] use analytical, simulation and experimental methods to identify, formulate and solve engineering tasks	To practically utilize various hydrographic devices and systems used in hydrographic work, taking into account limitations, errors, and calibration.	[SU4] test/exam - oral or written
	[HML3-W16] engineering standards and norms specific to the field of study, in particular those recommended by IHO and IMO	To plan, organize, and conduct hydrographic measurements in accordance with national regulations and international standards.	[SW4] test/exam - oral or written
	[HML3-W15] labour law and other legal bases related to the profession of hydrographer, in particular health and safety regulations and ergonomic principles	National and international standards, guidelines, and regulations regarding the planning and execution of hydrographic work, as well as the competencies and responsibilities of marine hydrographers.	[SW4] test/exam - oral or written
	[HML3-W14] basic legal regulations regarding the sustainable development of the marine environment and nature protection	Legal aspects of conducting hydrographic work.	[SW4] test/exam - oral or written
	[HML3-W03] directions of development and the latest discoveries in the field of scientific disciplines forming the theoretical basis appropriate to the field of study	Innovative remote measurement techniques used in hydrographic research.	[SW4] test/exam - oral or written
	[HML3-U08] independently use the professional literature available in traditional and electronic form, make an assessment, critical analysis and synthesis as well as the correct interpretation of the information obtained	Independently use professional literature available in both traditional and electronic formats, as well as the Internet, to integrate, evaluate, and correctly interpret the obtained information, draw conclusions, formulate opinions, and take actions for the effective and safe execution of hydrographic work.	[SU4] test/exam - oral or written
	[HML3-U02] select and apply basic research techniques and tools in the field of aquatic environment research, as well as plan and carry out measurements, develop the obtained results and interpret them correctly	Types and methods of conducting hydrographic work.	[SU4] test/exam - oral or written
Subject contents	[HML3-K04] perform professional roles responsibly, taking into account moral and ethical challenges, including in the international environment and care for the achievements and traditions of the profession	Responsible acquisition, processing, and dissemination of hydrographic data, taking into account the generally accepted principles of ethics in the profession of marine hydrography.	[SK4] test/exam - oral or written
	[HML3-W04] the issue of measurements related to the exploration of sea basins and inland waters and tools allowing to describe, interpret and present the results of measurements	The functioning of national and international hydrographic services for the purposes of navigation safety.	[SW4] test/exam - oral or written
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	51.0%	100.0%

Recommended reading	Basic literature	1. GRZĄDZIEL A., WAŻ M.: Powstanie i rozwój technologii echosondy wielowiązkowej. Polish Hyperbaric Research, Nr 1(62), 2018. 2. GRZĄDZIEL A., WAŻ M.: System echosondy wielowiązkowej w pomiarach batymetrycznych planowanych tras żeglugowych. Logistyka, Nr 6, 2014. 3. Podręcznik Normalizacji Obronnej Hydrografia Morska. Organizacja i zasady prowadzenia badań (PDNO-06-A072). 4. Podręcznik Normalizacji Obronnej Hydrografia Morska. Zasady gromadzenia danych i przedstawiania wyników (PDNO-06-A073). 5. Przegląd Hydrograficzny, Nr 1-8, BHMW, 2005-2013. 6. IHO C-13 Manual on Hydrography. 7. IHO M-2 The Need for National Hydrographic Services. 8. IHO S-5A Standards of Competency for Category A Hydrographic Surveyors. 9. IHO S-44 IHO Standards for Hydrographic Surveys. 10. IHO S-100 IHO Universal Hydrographic Data Model.
	Supplementary literature	Lekkerkerk, H. J., Van der Velden, R., Roders, J., Haycock, T., De Vries, R., Jansen, P., Beemster, C. (2006) <i>Handbook of Offshore Surveying</i> . Clarkson Research Services, London
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. Conducting hydrographic work: formal issues, international standards. 2. Types and categories of hydrographic and oceanographic devices and their applications. 3. Planning hydrographic work using various devices.	
Work placement	Not applicable	

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