

Subject card

Subject name and code	Military Aspects of Hydrography - lecture, PG_00201167						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2027		Academic year of realisation of subject		2030/2031		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		2.0		
Learning profile	practical		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Piotr Bekier				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	25.0	0.0	0.0	0.0	0.0	25
	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	25		1.0		24.0	50
Subject objectives	1. To familiarize students with military objects lying on the seabed, their basic properties and principles of operation. 2. Familiarization with safety rules when dealing with underwater objects of military origin.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[HML3-W15] knows and understands labour law and other legal bases related to the profession of hydrographer, in particular health and safety regulations and ergonomic principles		knows the threat posed by underwater military facilities to the marine environment		[SW4] test/exam - oral or written		
	[HML3-W13] knows and understands global environmental problems resulting from the development of civilisation, in particular strong anthropopressure in the coastal regions of seas and oceans		knows the safety rules when handling underwater objects of military origin		[SW4] test/exam - oral or written		
	[HML3-K03] is ready to apply economic and legal conditions in the aspect of professional activity related to the field of study		is ready to correct behavior in the event of detecting underwater objects of military origin		[SK4] test/exam - oral or written		
	[HML3-K01] is ready to correctly identify and resolve professional dilemmas, especially in the aspects of security and entrusted property		is ready to correct behavior in the event of detecting underwater objects of military origin		[SK4] test/exam - oral or written		
	[HML3-W12] knows and understands, at an advanced level, the key processes occurring in the life cycle of devices, facilities, and technical systems		knows the types of military facilities lying on the seabed and their principles of operation		[SW4] test/exam - oral or written		

Subject contents	Military objects lying on the seabed. Safety measures when handling underwater objects of military origin. Basic information about sea mines. An outline of the history of the use of sea mines in the Baltic Sea - mined water areas. Recognition of mines on a sonogram distinguishing acoustic features. Basic knowledge about the construction and operation of torpedoes and depth charges. Underwater weapons from World War II Methods of identifying and eliminating munitions (weapons) lying on the seabed. Safety aspects during neutralization and disposal of sunken weapons, designation of safety zones for underwater explosions. Organization and legal aspects of collecting and eliminating dangerous and explosive items.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	51.0%	100.0%
Recommended reading	Basic literature	1. WITKA S. (red.): Problemy detekcji i utylizacji materiałów niebezpiecznych. Wojskowy Instytut Techniki Inżynieryjnej, Wrocław 2010.	
	Supplementary literature	1. KOMOROWSKI A.: Broń torpedowa. Bellona, 1995	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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