

**Subject card**

<b>Subject name and code</b>	Sea Haulage - laboratory classes , PG_00201157						
<b>Field of study</b>	Marine Hydrography						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2029/2030		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to practical vocational preparation		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	4	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	7	<b>ECTS credits</b>			1.0		
<b>Learning profile</b>	practical	<b>Assessment form</b>			credit		
<b>Conducting unit</b>							
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr inż. Piotr Bekier				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	0.0	15.0	0.0	0.0	15
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	15		1.0		9.0	25
<b>Subject objectives</b>	<ol style="list-style-type: none"> <li>Providing knowledge on the safety of cargo operations, including dangerous cargo, classification of ship cargo, and the use of cargo codes.</li> <li>Acquiring skills in using Draft Survey based on draft measurement, developing and using a cargo plan.</li> </ol>						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[HML3-U12] is able to use engineering standards and norms and apply technologies specific to the field of study	is able to: - calculate the amount of cargo based on the measurement of the ship's draft; plan the transport of cargo; - take precautions when entering closed or contaminated rooms; specify requirements for the maintenance and inspection of hatch covers	[SU2] presentation/project/paper/report
	[HML3-U11] is able to use navigation devices, means of technical observation and communication as well as measuring instruments, as well as apply in practice various techniques of measurement and observation in the field of professional activity related to the field of study	is able to properly perform alarm duties; use simulation programs related to ship loading plans	[SU2] presentation/project/paper/report
	[HML3-U08] is able to 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	is able to calculate the amount of cargo based on the measurement of the ship's draft; plan the transport of cargo	[SU2] presentation/project/paper/report
	[HML3-W11] knows and understands, at an advanced level, rules, regulations and procedures related to the carriage of cargo by sea, in particular the physico-chemical characteristics of cargoes accepted on board and the rules for their handling	knows: - cargo classification; the characteristics and properties of cargo, as well as cargo protection in maritime transport; cargo units in maritime transport; - delivery procedures, quality and quantity control, and cargo acceptance; cargo care, hold preparation, cargo segregation, cargo damage; hold ventilation rules; - transport of dangerous goods by sea; the IMDG Code, classification into classes, packaging and marking, segregation rules, precautions during transshipment and transport; - stowage and separation materials, securing equipment, and cargo securing rules; shipboard equipment and cargo handling gear; operating instructions and health and safety regulations for cargo handling operations; rules for the transport and securing of deck cargo, oversized cargo, and heavy items; - cargo transport technologies: bulk cargo, bulk grain, general cargo, timber, refrigerated cargo, fruit, containers, loading planning, stowage plans; - operation of bulk carriers; calculating cargo weight based on draft readings; operation of container ships, loading/unloading planning, operation of general cargo ships, loading/unloading plans; operation of side-loading/unloading vessels; operation of tankers, gas carriers, and chemical tankers; accounting for received liquid cargo, cargo report; - safety precautions when entering enclosed or contaminated spaces; requirements for the maintenance and inspection of hatch covers; - cargo classification; codes for the transport of dangerous goods; issues related to cargo transport	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report

	Course outcome	Subject outcome	Method of verification
	[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 take charge of the cargo, prepare the hold, report cargo damage, and supervise the crew during stowage operations	[SK2] presentation/project/paper/report
	[HML3-U06] is able to make a preliminary economic assessment of the proposed solutions and engineering activities undertaken	is able to: - classify and describe cargo; - ensure cargo protection; - distinguish between cargo units in maritime transport; describe procedures for delivery, quality and quantity control, and cargo acceptance; prepare the hold; report cargo damage; apply the principles of hold ventilation; - apply appropriate technologies for the transport of cargo: bulk cargo, bulk grain, general cargo, timber, refrigerated cargo, fruit, and containers; plan loading (loading plans); - calculate the amount of cargo based on the ship's draft measurement; plan cargo transport	[SU4] test/exam - oral or written
	[HML3-U07] is able to effectively use information and communication techniques, including utility programs to solve professional problems	can: - calculate the cargo volume based on the ship's draft measurement; plan cargo transport; - calculate the cargo weight based on the draft reading; plan the loading and unloading of various types of ships; account for received liquid cargo; prepare a cargo report	[SU4] test/exam - oral or written
	[HML3-W16] knows and understands engineering standards and norms specific to the field of study, in particular those recommended by IHO and IMO	knows: - cargo classification; cargo characteristics and properties, and cargo protection in maritime transport; - cargo units in maritime transport; - delivery procedures, quality and quantity control, and cargo acceptance; cargo care, hold preparation, cargo segregation, cargo damage; hold ventilation rules; - the transport of dangerous goods by sea; the IMDG Code, classification into classes, packaging and marking, separation rules, and precautions during transshipment and transport; - cargo classification; codes governing the transport of dangerous goods; issues related to cargo transport	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
Subject contents	Cargo classification. Cargo units in maritime transport. Dunnage and separation materials, cargo securing equipment, cargo securing. Rules for the carriage and securing of deck cargo. Containers in sea transport: types and markings, planning of cargo operations, securing. Dangerous loads. Dry bulk cargo. Loading, unloading and transport of coal. Loading, unloading and transport of bulk grain. Cargo care. Operation of tankers, chemical tankers, gas carriers. Controlling and caring for cargo during a sea voyage. Inspections of holds, hatch covers, ballast tanks. Calculation of cargo quantity based on draft. Loading and unloading planning, stowage.		
Prerequisites and co-requisites	Subject required by the Regulation of the Minister of Infrastructure and Development of February 5, 2014, on framework training programs and examination requirements for deck department seafarers (i.e., Journal of Laws 2023, item 1566): attendance at all classes is mandatory. AMW allows students to make up for up to 20% of excused absences from these classes in a form that enables them to acquire the missing knowledge and skills. Students who have passed the course but, due to absences exceeding 20% of classes or failure to make up for classes in a form that allows them to obtain the missing knowledge and skills, do not receive an entry in the supplement confirming completion of studies recognized at the operational level in coastal shipping.		

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	report	51.0%	50.0%
	test	51.0%	50.0%
Recommended reading	Basic literature	1. GRZYBOWSKI L., ŁĄCZYŃSKI B., NARODZONEK A., PUCHALSKI J.: Kontenery w transporcie morskim. Trademar, Gdynia 2003. 2. JURDZIŃSKI M.: Podstawy bezpiecznej eksploatacji masowców. WSM, Gdynia 1997. 3. KABACIŃSKI J., KICIŃSKA M.: Eksploatacja statków do przewozu gazów skroplonych. WSM, Szczecin 1993.	
	Supplementary literature	1. International Maritime Dangerous Goods Code. IMO, Londyn 2006. 2. International Maritime Solid Bulk Cargo Code. IMO, Londyn 2008.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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