University of Gdańsk

Subject card

Subject name and code	Meteorology II - lecture, PG_00198805						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2027/2028			
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	3		ECTS credits	1.0			
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	15.0	0.0	0.0	0.0	0.0	15
	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	15		1.0		9.0	25
Subject objectives	As a result of the training, the trainee should acquire: a) knowledge in the following areas: - the functioning of the atmosphere and sea and the interaction of both subsystems; - measurement equipment used in meteorological observations at sea; - principles of conducting meteorological and hydrological observations. b) skills in the following areas: - using measurement equipment; - using observation scales correctly; - determining the true wind based on the apparent wind.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[HML3-W01] knows and understands, at an advanced level, selected facts, phenomena and processes, as well as methods and theories concerning them, explaining the complex relationships between them, constituting basic general knowledge in the field of scientific disciplines forming the theoretical foundations specific to the field of study	knows and understands, at an advanced level, the phenomena and processes occurring in the atmosphere and their interrelationships	[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 and understands, at an advanced level, the global environmental issues affecting the marine and atmospheric environments resulting from human development, particularly the intense anthropogenic pressure on coastal regions of the seas and oceans	[SW4] test/exam - oral or written
[HML3-U14] is able to use the applicable terminology in presenting and discussing problems related to the field of study	is able to use the applicable scientific terminology in presenting and discussing issues related to meteorology	[SU3] text preparation/written work [SU4] test/exam - oral or written
[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 independently use professional literature on meteorology, available in both print and electronic formats, as well as databases and the Internet; is able to synthesize, evaluate, and correctly interpret the information obtained, and draw conclusions based on it	[SU2] presentation/project/paper/ report [SU4] 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 complete tasks on time, whether working individually or as part of a team	[SK2] presentation/project/paper/ report
[HML3-W02] knows and understands, at an advanced level, selected phenomena and processes occurring in the hydrosphere, atmosphere, lithosphere and biosphere, their interconnections and relations, as well as practical applications of this knowledge in professional activities related to the field of study	knows the basics of how the atmosphere and the ocean function and how they interact	[SW4] test/exam - oral or written

Subject contents

1. Observed and measured weather elements.
2. Air temperature.
3. Air humidity.
4. Cloud types.
5. Precipitation.
6. Fog and mist.
7. Visibility.
8. Atmospheric pressure.
9. Pressure systems, atmospheric fronts.
10. Ice phenomena.
11. Local winds.
12. Receiving and interpreting weather information on board.
13. Principles of meteorological measurements and observations.
14. Completing the ship's logbook and hydrometeorological observation log.

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.

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>report</td><td>51.0%</td><td>50.0%</td></tr>
<tr><td>written test</td><td>51.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>1. DUXBURY A.: Oceany świata. 2002.
2. HERMAN A.: Podstawy meteorologii. Skrypt do ćwiczeń z przedmiotu "Meteorologia morska". Wydawnictwo Uniwersytetu Gdańskiego, 2006.
3. HOLEC M., TYMAŃSKI P.: Podstawy meteorologii i nawigacji meteorologicznej. 1973.
4. KOŻUCHOWSKI K. (red.): Meteorologia i klimatologia. Wydawnictwo Naukowe PWN, 2007.
5. TRZECIAK S.: Meteorologia morska z oceanografią. PWN, 2006.
6. WIŚNIEWSKI B.: Problemy wyboru drogi morskiej. 1992.</td></tr>
<tr><td>Supplementary literature</td><td>1. HÄKEL H.: Pogoda i klimat. Multico, 2009.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">1. Describe/discuss the vertical structure of the atmosphere.

2. Provide a practical interpretation of the laws of radiation.

3. How to read a synoptic map?</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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