GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00043284		
Field of study	Coastal and Offshore Engineering, Coastal and Offshore Engineering		
Date of commencement of studies	February 2022	Academic year of realisation of subject	2021/2022
Education level	second-cycle studies	Subject group	Obligatory subject group in the field of study 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	1	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Hydromechanics and Hydroacoustics -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Lech Rowiński	
	Teachers	dr hab. inż. Lech Rowiński	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30

E-learning hours included: 0.0

Oceanologia i oceanografia (PG_00043284) - Moodle ID: 22356
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22356

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	30	5.0	15.0	50

Subject objectives

The aim of the course is to acquaint the state of knowledge about the environment in the areas of the oceans, seas and inland waters and the research methods used in their investigation. Passed the basic information on all environmental features relevant to industrial civilization associated with the possibilities of using the environment for the purposes of industrial and social at the same time protecting the environment from the devastation.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K7_W05	Has knowledge about the environment of the seas and oceans, including the specific properties of the Baltic Sea	[SW1] Assessment of factual knowledge
K7_U07	Has knowledge about phenomena that determine the processes occurring in the seas and oceans.	[SU2] Assessment of ability to analyse information

Subject contents

Lecture: Geography of oceans and major inland water areas. The history of oceanography and oceanology. Basic researching methods. Form and the structure of the sea bottom. Chemical composition and the proprieties of sea water. The temperature of oceanic waters and the transportation of heat on water areas. The inner circulation of water in seas and oceans. Sea currents. Tides and waving. Climatical changes and the irregularities of the level of oceans. The specifics of polar areas. Meaning of information about water environment for society and its economic influence. The influence of the civilization on the sea environment. The organization of oceanology researching and data processing.

Prerequisites and co-requisites

none

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
test	65.0%	60.0%
report of the exercises	80.0%	40.0%

Recommended reading	Basic literature	1. Duxbury A.C., Duxbury A.B., Sverdrup K.A., Oceany świata. Wydawnictwo Naukowe PWN, Warszawa 2002. 2. Majewski A.,Oceany i morza. Wydawnictwo Naukowe PWN, Warszawa 1992. 3. Thurman H.V., Zarys oceanologii. Wydawnictwo Morskie, Gdańsk 1982. 4. J. Craig, D.J. Vaughan, B.J. Skinner, Zasoby Ziemi, PWN, Warszawa 2003 5. Lawrence E. Hawkins , Stephen Hutchinson: Oceany; Carta Blanca , 2008
	Supplementary literature	1. Stefan Trzeciak: Meteorologia morska z oceanografią. PWN, 2009 2. Rowiński L.: Technika Głębinowa, WIB, Gdańsk, 2008. 3. Offshore Magazine
	eResources addresses	
Example issues/ example questions/ tasks being completed	1. History of oceanographic research 2. The relationship between the movements of the earth's crust and the shaping of the seabed 3. Morphotectonic forms in the floor of the deep ocean basins 4. Natural conditions shaping the conditions of propagation of acoustic waves in the Baltic 5. Causes of ocean tides 6.The main forces that generate sea surface waving 7. Ocean currents 8. Hydroacoustic devices	
Work placement	Not applicable	