GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056297		
Field of study	Ocean Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2023/2024
Education level	first-cycle studies	Subject group	Optional subject group 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	3	Language of instruction	Polish
Semester of study	6	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Damian Bocheński	
	Teachers		

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

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	3.0	17.0	50

Subject objectives

To acquaint students with the technical, economic and ecological aspects of the selection and operation of a ship's propulsion

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W06] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of ocean technology objects and systems	The student is able to assess the efficiency of various ship propulsion systems.	[SW1] Assessment of factual knowledge
[K6_U05] can formulate a simple engineering task and its specification within the range of design, construction and operation of ocean technology objects and systems	The student is able to find the relationship between efficiency and economy of the drive. He can determine the influence of the type of propulsion on ecological threats.	[SU1] Assessment of task fulfilment
[K6_W08] has knowledge of the principles of sustainable development	The student has structured knowledge related to the design of ship propulsion systems	[SW1] Assessment of factual knowledge

Subject contents

Technical requirements for ship propulsion, selection of propulsion system for various types of transport ships. Analysis of the selection of the ship's propulsion and energy system, taking into account the influence of economic criteria (investment and operating costs). Impact of the type of ship propulsion on environmental pollution.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	60.0%	100.0%

Recommended reading	Basic literature	1. Balcerski A.: Siłownie okrętowe. Wyd. PG 1990 2. Urbański P.: Gospodarka energetyczna na statkach, Wyd. Morskie 1978 3. Woud H. K., Stapersma D.: Design of propulsion and electric power generation systems. IMarEST, London 2002 4. Kosowski K, Ship Turbine Power Plans, Wyd. PG Delft University, Gdańsk 2004
	Supplementary literature	Dr.C.B.Barrass: Ship_Design_and_Performance_for_Masters_and_Mate Elsevier
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	