GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Fundamentals of ships` drives and devices, PG_00044037		
Field of study	Ocean Engineering, Ocean Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2021/2022
Education level	first-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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Ship and Land Based Power Plants -> Faculty of Ocean Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Piotr Bzura	
	Teachers	dr inż. Piotr Bzura	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	20.0	0.0	0.0	0.0	0.0	20

E-learning hours included: 0.0

Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=9237
Adresy na platformie eNauczanie:
Podstawy napędów i urządzeń okrętowych - Moodle ID: 17958
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17958

Additional information:
Classes conducted remotely and conducted on the MS Teams platform

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	20	3.0	54.0	77

Subject objectives

To acquaint students with the basic information on marine propulsion systems

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U04] has self-education skills in order to improve professional qualifications, is ready to work in industrial environment, adheres to HSE rules and regulations	He combines knowledge of mechanics and physics to identify energy processes carried out in machines and devices in a ship's power plant.	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	Explains the functioning of the basic elements of the marine propulsion system. Describes the cooperation process of the engine-fuselage-screw system. Uses indicators that characterize the marine power plant.	[SW2] Assessment of knowledge contained in presentation

Subject contents

Types of marine propulsion, their classification. Diesel engine solutions - direct, indirect drive. Main drive system components (gears, couplings, bearings, seals). Fundamentals of engine-propeller-hull cooperation. Installations supporting internal combustion engines. Gym auxiliaries. Elements of the spatial layout of the gym. Basic indices characterizing the marine power plant (efficiency, power).

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	50.0%	100.0%

Recommended reading	Basic literature	Balcerski A.: Siłownie okrętowe. Skrypt Politechniki Gdańskiej 1990. Górski Z., Perepeczko A.: Okrętowe maszyny i urządzenia pomocnicze. Wyd. TRADEMAR 1998. Wojnowski W.: Siłownie okrętowe. Cz I, II i III. AMW Gdynia 1999.
	Supplementary literature	Babicz J.: WÄRTSILÄ ENCYCLOPEDIA OF SHIP TECHNOLOGY 2015
	eResources addresses	Podstawy napędów i urządzeń okrętowych - Moodle ID: 17958 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17958
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	