



Subject card

Subject name and code	, PG_00058964						
Field of study	Ocean Engineering						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group					
Mode of study	Part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Zakład Siłowni Okrętowych -> Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Piotr Bzura				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	18.0	0.0	18
	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	18		0.0		0.0	18
Subject objectives	To acquaint students with the issues of designing marine diesel power plants						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U06] when forming and solving design tasks can see their non-technical aspects, including environmental, economical and legal ones. Applies HSE rules and regulations		The student is able to design elements of ship power plant, noting economic and ecological aspects		[SU1] Assessment of task fulfilment		
	[K7_W07] has knowledge on the development perspectives of ocean technology objects and systems, knows the newest and most relevant achievements in ocean technology		The student knows new, innovative solutions for ship propulsion		[SW1] Assessment of factual knowledge		
	[K7_W06] has an organized, widened knowledge on engineering methods and design tools allowing the conducting of advanced projects within the construction and operation of ocean technology objects and systems		The student is able to use the methods and design tools in the implementation of tasks		[SW1] Assessment of factual knowledge		
Subject contents	The procedure of selecting propulsion systems, thrusters, selection of the main engine and generating sets, designing pipeline installations in the engine room, creating a plan of the engine room, analysis of energy and heat balances						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	project		51.0%		100.0%		

Recommended reading	Basic literature	<p>Urbański P.: Instalacje spalinowych siłowni okrętowych. Skrypt Gdańsk 1994</p> <p>Michalski R.: Siłownie okrętowe. Obliczenia wstępne oraz ogólne zasady doboru mechanizmów i urządzeń pomocniczych instalacji siłowni okrętowych. Skrypt Politechniki Szczecińskiej, Szczecin 1987</p> <p>Przepisy klasyfikacji i budowy statków morskich. PRS, Gdańsk 2004.</p> <p>Wojnowski W.: Okrętowe siłownie spalinowe. Gdańsk, cz. II 1992</p> <p>Zygmunt Górski, Mariusz Giernalczyk. Siłownie okrętowe. Akademia Morska w Gdyni 2014.</p>
	Supplementary literature	<p>1. Project Guide MAN B&W</p> <p>2. Project Guide Wartsila</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	