



Subject card

Subject name and code	Ship Structures Equipment Design, PG_00057239						
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			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	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Marine Mechatronics -> Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Wojciech Litwin				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	15.0	0.0	45
	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	45		8.0		22.0	75
Subject objectives	Acquiring the ability to design various devices, equipment for ships and ocean engineering facilities						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W05] has an organized, widened knowledge on design, construction and operation of ocean technology objects and systems				[SW1] Assessment of factual knowledge		
	[K7_U07] in compliance with a formulated specification and with the aid of appropriate tools and methods, is able to complete an advanced engineering task within the range of design, construction and operation of ocean technology objects and systems				[SU1] Assessment of task fulfilment		
	[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				[SW1] Assessment of factual knowledge		
Subject contents	Lecture. The sequence of proceedings when designing ship equipment: Review and analysis of materials related to the current design solutions of a given device. Analysis of the regulations of classification societies and other institutions approving the project in the field of work. Specifying technical assumptions and operating conditions. Choosing or developing your own design solution for the device and developing its technical description and kinematic diagram. Analysis of the operating states of the device and calculation of basic loads and then stresses in the most loaded elements. Preparation of an assembly drawing of the device and two executive drawings of selected elements. Final analysis and conclusions. Project: Project of a ship or technological device for a specific ship or other floating object made in accordance with the content given in the lecture						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	test + project		70.0%		100.0%		

Recommended reading	Basic literature	<p>1. Dietrich M.: Podstawy konstrukcji maszyn. Wydawnictwo Naukowo-Techniczne, Warszawa, 1999.</p> <p>2. Dobrzański J.: Rysunek techniczny maszynowy.</p>
	Supplementary literature	<p>1. Cudny M.: Linie wałów okrętowych. Konstrukcja i obliczenia. Wydawnictwo Morskie, Gdańsk, 1990.</p> <p>2. Dymarski C. Okrętowe śruby nastawne, konstrukcja i sterowanie, Wyd. P.G. Gdańsk 2011.</p> <p>3. Więckiewicz W.: Urządzenia pokładowe na statkach towarowych. Wyd. AM w Gdyni, Gdynia, 2003.</p> <p>4. Więckiewicz W.: Instalacje kadłubowe statków morskich. Wyd. WSM w Gdyni, Gdynia, 2001.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	