



Subject card

Subject name and code	Hydraulic Drives Design, PG_00057237						
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	Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Daniel Piątek					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	30.0	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	10.0		20.0	75	
Subject objectives	understanding of the functioning of the hydrostatic drive systems; know the specifics of hydrostatic systems in ocean engineering; knowledge of the workings of hydraulic components; ability to design hydraulic systems structures; the ability to calculate and matching system components;						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[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	student is able to optimize the operation of the hydrostatic system in terms of the selected criterion: energy efficiency, construction and operation costs, etc.			[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information		
	[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	student using computer tools can design a complete hydraulic system for an ocean engineering object			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
	[K7_W05] has an organized, widened knowledge on design, construction and operation of ocean technology objects and systems	student is able to design a hydrostatic drive system and select its components			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
Subject contents	Calculation of the components of the hydraulic system installation, pumps, motors, valves; selection of items from the directory, execute technical drawings;						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		project	60.0%
Recommended reading	Basic literature	1. STRYCZEK, S.: Napęd hydrostatyczny. T I i II. WNT, Warszawa 2005. 2. PASZOTA, Z.: Aspects Energetiques des Transmissions Hydrostatiques. Wyd PG, Gdańsk 2002 3. GÓRSKI, Z.: Budowa i działanie okrętowych urządzeń hydraulicznych. TRADEMAR, Gdynia 2008. 4. DYMARSKI, Cz.: Okrętowe śruby nastawne. Wyd. PG, Gdańsk 2009. 5. BALCERSKI, A., BOCHEŃSKI, D.: Układy technologiczne i energetyczne jednostek oceanotechnicznych. Wydawnictwo PG, Gdańsk 1998.	
	Supplementary literature	-	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		