



Subject card

Subject name and code	, PG_00041835						
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		4.0		
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 inż. Wojciech Leśniewski				
	Teachers		dr inż. Wojciech Leśniewski dr inż. Magdalena Kunicka				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	10.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Elektrotechnika i elektronika niestacjonarne zima 2021/2022 [PG_00041835] - Moodle ID: 17814 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17814						
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		5.0		65.0	100
Subject objectives	Familiarize students with the basic issues in the field of electrical engineering and electronics						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_K01] is aware of the need of constant improvement within the range of the possessed job and knows the possibilities of further education		Knowledge of the latest trends and directions of development of electric drives in the shipbuilding industry.		[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice		
	[K6_W03] has a basic knowledge on hydromechanics, thermodynamics, machine construction, ecology, materials science and electronics necessary to understand the construction and operation principles of ocean technology objects and equipment		Knowledge of basic laws and issues in the field of electrical engineering		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		

Subject contents	Basic physical quantities in electrical engineering. Elements of RLC electric circuits. Analysis of electric circuits and marking of these systems. Solving electrical circuits in the time domain. Analysis of electric circuits - solving using the graphical method. Analysis of electrical circuits - solving with the analytical method. Equivalent impedance. Magnetic circuits - analysis and solving of magnetic circuits. Associated three-phase circuits. Conversion of electrical energy into mechanical energy, thermal energy.								
Prerequisites and co-requisites									
Assessment methods and criteria	<table><tr><td>Subject passing criteria</td><td>Passing threshold</td><td>Percentage of the final grade</td></tr><tr><td>test</td><td>50.0%</td><td>100.0%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	test	50.0%	100.0%		
Subject passing criteria	Passing threshold	Percentage of the final grade							
test	50.0%	100.0%							
Recommended reading	Basic literature	Basic electronics engineering							
	Supplementary literature	Basic electronics engineering							
	eResources addresses	Elektrotechnika i elektronika niestacjonarne zima 2021/2022 [PG_00041835] - Moodle ID: 17814 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17814							
Example issues/ example questions/ tasks being completed	Calculating the equivalent impedance for a circuit. Calculation of current and voltage flows.								
Work placement	Not applicable								