

## Subject card

Subject name and code	Electrotechnics and Electronics I, PG_00039826								
Field of study	Materials Engineering, Materials Engineering								
Date of commencement of studies	October 2021		Academic year of realisation of subject			2022/2023			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study			
Mode of study	Full-time studies		Mode of delivery			at the university			
Year of study	2		Language of instruction			Polish			
Semester of study	3		ECTS credits			2.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Electro	rosion and Materials Engineering -> Faculty of Chemistry							
Name and surname	Subject supervisor	dr hab. inż. Krzysztof Żakowski							
of lecturer (lecturers)	Teachers dr hab. inż. Krzysztof Żakowski								
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Project	t	Seminar	SUM	
of instruction	Number of study hours	30.0	0.0	0.0	0.0		0.0	30	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity	Participation in classes include plan		Participation in consultation hours		Self-study		SUM	
	Number of study hours	30		1.0		19.0		50	
Subject objectives	The student masters the basics of electrical engineering in the scope enabling understanding of the principles of generation, transmission and distribution of electricity, operation of selected electrical machines, devices, systems, principles of operation of measuring instruments. The acquired knowledge will be useful in the further course of study, in future professional work and in everyday life when using modern electrical and electronic devices.								
Learning outcomes	_earning outcomes Course outcome		Subject outcome		Method of verification				
	K6_W05					[SW1] Assessment of factual knowledge			
	K6_K01		Student is able to properly set priorities for the implementation of specific tasks.			[SK5] Assessment of ability to solve problems that arise in practice			
	K6_U06		Student is able to use modern electrical and electronic devices.			[SU4] Assessment of ability to use methods and tools			
Subject contents	<ul> <li>DC and AC electrical circuits.</li> <li>Three-phase systems.</li> <li>Electric machines: generators, motors, transformers.</li> <li>Power system.</li> <li>Electrical installations.</li> <li>Electrical measurements.</li> <li>Basic electronic components and systems.</li> </ul>								
Prerequisites and co-requisites	General knowledge of electrical engineering. Fundamentals of physics.								
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade				
	test		60.0%			100.0%	6		
Recommended reading	Basic literature		not applicable						
	Supplementary literature		not applicable						

Data wydruku: 10.04.2024 16:13 Strona 1 z 2

	eResources addresses	Adresy na platformie eNauczanie: Elektrotechnika i elektronika IM 2022/23 wykłady - Moodle ID: 21610 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=21610
Example issues/ example questions/ tasks being completed	<ul> <li>Connecting three-phase receive</li> <li>Commutator machines.</li> <li>Induction motors.</li> <li>TN-S, TN-C-S network systems</li> <li>Analog and digital meters.</li> <li>Diodes, transistors, thyristors.</li> </ul>	Č
Work placement	Not applicable	

Data wydruku: 10.04.2024 16:13 Strona 2 z 2