



Subject card

Subject name and code	Metrology II, PG_00056027						
Field of study	Electrical Engineering						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2025/2026		
Education level	first-cycle studies	Subject group					
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 Metrology and Information Systems -> Faculty of Electrical and Control Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marek Wołoszyk				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30		2.0		18.0	50
Subject objectives	Introduce students with the methods and tools for measuring electrical and nonelectrical quantities						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_K02						
	K6_U02						
	K6_W05						
Subject contents	LABORATORY Analysis of measurement data. Calibration. Measurement of RLC parameters. Oscilloscope measurement. Power measurement of three phase circuits. Measurement of sinusoidal and distorted waveforms. Computer processing of measurement signals. Electrical temperature measurements. Examination of selected displacement sensors.						
Prerequisites and co-requisites	Basic knowledge of electrical engineering and electrical circuit analysis. Knowledge of the Metrology I course.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Practical exercise		60.0%		100.0%		
Recommended reading	Basic literature		1. Praca zbiorowa (red. Swęrowski L.): METROLOGIA. Skrypt do laboratorium. Wydawnictwo Politechniki Gdańskiej, 2009.				
	Supplementary literature		1. Chwaleba A., Poniński M., Siedlecki A.: Metrologia elektryczna. WNT, 2010. 2. Tumański S.: Technika pomiarowa. WNT, 2016. 3. Lisowski M.: Podstawy metrologii. Oficyna Wydawnicza Politechniki Wrocławskiej, 2011.				
	eResources addresses		Adresy na platformie eNauczanie:				
Example issues/ example questions/ tasks being completed	1. Explain the concepts of median and modal values. 2. Measurement error of insensitivity in a Wheatstone bridge. 3. The methods and sensors used for the teperature measurements.						
Work placement	Not applicable						