GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Electric Equipment and Wiring Systems, PG_00042182		
Field of study	Power Engineering, Power Engineering, Power Engineering, Power Engineering, Power Engineering		
Date of commencement of studies	October 2020	Academic year of realisation of subject	2022/2023
Education level	first-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	3	Language of instruction	Polish
Semester of study	6	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Electrical Power Engineering -> Faculty of Electrical and Control Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Zbigniew Lubośny	
	Teachers	prof. dr hab. inż. Zbigniew Lubośny dr inż. Seweryn Szultka	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	15.0	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	3.0	17.0	50

Subject objectives

Acquainting with the construction and principles of selection of elements of electrical installations.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_W12	The student knows circuits and systems protection against electric shocks and phenomena occurring in during normal and emergency operation electrical installations.	[SW1] Assessment of factual knowledge
K6_U08	The student is able to design an electrical installation.	[SU1] Assessment of task fulfilment
K6_W08	The student can select an item electrical installation system	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Electrical installations - definitions, structure, requirements. Impact of working and short-circuit currents on installation components. Power cables, fuses, circuit breakers, differential circuit breakers - design and characteristics. Principles of installation design

Prerequisites and co-requisites

Basics of electrical engineering

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	60.0%	100.0%

Recommended reading

Basic literature

Markowski H.: Urządzenia i instalacje elektroenergetyczne. WNT Warszawa 2006.
Musiał E.: Urządzenia elektroenergetyczne. PWSiP, Warszawa 2003.
Poradnik Inżyniera elektryka. WNT Warszawa 2011.
N SEP-E-002 Instalacje elektryczne w obiektach budowlanych.
Instalacje elektryczne w obiektach mieszkalnych. Warszawa 2006.
Electrical installation guide. According to IEC International Standards. Schneider Electric, 2018
Electrical installations handbook. Protection, control and electrical devices. ABB SACE 2010

	Supplementary literature	Ismail Kasikci, Short Circuits in Power Systems. A practical Guide to IEC 60909. Wiley-VCH. 2002. IEC 60364)Low-voltage electrical installations. PN-IEC 60364 Instalacje elektryczne w obiektach budowlanych. Bill Atkinson, Electrical Installations Designs. John Wiley & Sons, 2013
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Design a part of the installation in terms of cable selection and protection (fuse, circuit breaker installation).	
Work placement	Not applicable	