



Subject card

Subject name and code	Electrical Wiring Systems , PG_00062079						
Field of study	Civil Engineering						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	first-cycle studies		Subject group				
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		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Electrified Transportation -> Faculty of Electrical and Control Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Jacek Skibicki				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	5.0	0.0	0.0	0.0	15
	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	15		0.0		0.0	15
Subject objectives	The main purpose of the subject is to become familiar with the principles of using electrical installations and the basics of their design. Information on the construction of electrical installations, their types, protections, electric shock protection, etc. will be provided. In addition, students will learn the methods of energy transmission in the power system and how to produce it.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U03] Design engineering objects and details, processes and engineering systems by applying appropriate standards and methods of design.		The student is able to select elements of the electrical installation in a residential building and the power supply installation.		[SU1] Assessment of task fulfilment		
	[K6_W03] Demonstrate knowledge and understanding of the processes, established standards and design methods in the civil engineering subject area and of their limitations.		The student is able to recognize the elements of the electrical installation, assign devices to particular protection classes, and is able to determine the conditions for conducting the electrical installation in the room.		[SW1] Assessment of factual knowledge		
	[K6_U04] Reads and prepares construction documentation (including drawings, graphic documentation in the CAD environment), efficiently uses maps as well as architectural, construction and geodetic drawings.		The student is able to design elements of the electrical installation system in a residential building based on the assumed power of electrical loads.		[SU1] Assessment of task fulfilment		
Subject contents	Course content – lecture						
	The concept of electrical installation. Construction of domestic and industrial installations. Electricity receivers. Overcurrent protection. Electric shock protection. Electrical installation in industry. Electricity transmission, overhead and cable lines. Electricity generation, conventional, nuclear, hydro, wind, solar and micro power plants. Prosumment instalations.						
	Course content – exercises						
	Calculation selection of electrical installation components.						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Colloquium on exercises	60.0%	40.0%
	Lecture final test	60.0%	60.0%
Recommended reading	Basic literature	Musiał. E.: Instalacje i urządzenia elektroenergetyczne. Warszawa. WSiP. Wiatr J., Orzechowski M.: Poradnik projektanta elektryka. Warszawa. Medium. Czapp S. Ochrona przeciwporażeniowa w sieciach i instalacjach niskiego napięcia. Warszawa PWN	
	Supplementary literature	Niestępski S, Parol M., Pasternakiewicz J., Wiśniewski T.: Instalacje elektryczne, budowa, projektowanie i eksploatacja. Warszawa OWPW. Lichnowski J.: Urządzenia elektryczne na placu budowy. Warszawa. Arkady.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	Selecting the cross section of electrical wiring. Selection of short-circuit protection.	
Practical activities within the subject	Not applicable		

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