GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Designing of Printed Electronic Circuits, PG_00053438		
Field of study	Electrical Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Controlled Electric Drives -> Faculty of Electrical and Control Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Blecharz	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	15.0	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	5.0	65.0	100

Subject objectives

The aim of the course is to provide students with knowledge of the design and construction of the Printed Circiut Board (PCB) and to acquire skills for students to independently design and make simple electronic circuits and printed circuit boards.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_K01	Working with technical documentation provided by manufacturers of electrical components.	[SK5] Assessment of ability to solve problems that arise in practice
K6_W10		
K6_U09		
K6_U10		

Subject contents

- Independent design of the electronic system with complete technical documentation of printed circuit board.
- Design, manufacture, and commission an electronic device.

Prerequisites and co-requisites

Basic knowledge of electronics and power electronics is required.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Lecture	50.0%	20.0%
Laboratory	50.0%	80.0%

Recommended reading

Basic literature

1. Clyde F. Coombs; Happy Holden:Printed Circuits Handbook, Seventh Edition, 2016, McGraw-Hill Education
2. D. Brooks:Signal Integrity Issues and Printed Circuit Board Design,
3. Prentice Hall, 2003.The hitchhiker's guide to PCB design : things you wish you knew yesterday and will need to know tomorrow. Rochester, NY: EMA Design Automation, Inc.

Supplementary literature

1. Felba J: Montaż w elektronice, Oficyna Wydawnicza Politechniki Wrocławskiej, 2010.
2. D. Brooks:Signal Integrity Issues and Printed Circuit Board Design, Prentice Hall, 2003.
3. The hitchhiker's guide to PCB design : things you wish you knew yesterday and will need to know tomorrow. Rochester, NY: EMA Design Automation, Inc.

eResources addresses

Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	Development of a project, realization, and commissioning of an electronic device. Students can choose from a list of proposals for electronic circuits. It is possible to implement individual designs of electronic systems solutions in consultation with the teacher. • The most common design mistakes. • Stages of creating printed circuit designs
Work placement	Not applicable