GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Electronic Circuit Design, PG_00038321
Field of study	Automation, Robotics and Control Systems

Date of commencement of studies	October 2022	Academic year of realisation of subject	2022/2023
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam

Conducting unit	Department of Mechatronics and High Voltage Engineering -> Faculty of Electrical and Control Engineering

Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Grzegorz Redlarski
	Teachers	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	10.0	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	7.0	63.0	100

Subject objectives	Acquiring knowledge and skills to independently design of simple electronic circuits and Printed Circuit Boards.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	K7_K02	A student, working in a group, is able to solve basic problems in the field of designing of electronic circuits and PCBs.	[SK1] Assessment of group work skills
	K7_U11	A student, using known methods and tools, can design a basic electronic circuits and PCBs.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	K7_W12	A student has basic knowledge and skills in the field of design of electronic circuits and PCBs.	[SW2] Assessment of knowledge contained in presentation

Subject contents	Knowledge of the basic principles of design of electronic circuits. Ability to create PCB boards Implementation of the project tasks based on advanced and professional software Altium Designer.
Prerequisites and co-requisites	Basic knowledge of robotics and mechatronics.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		70.0%	70.0%
		100.0%	30.0%

Recommended reading	Basic literature	1. Ed. Blackwell, G.R.: "The Electronic Packaging Handbook", Boca Raton, CRC Press LLC, 2000. 2. Horowitz P. Hill W.: 'The Art of Electronics" Third Edition. Cambridge University Press.
	Supplementary literature	1. Altium Designer Guide.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	1. The rules connected with creation of PCB for analog circuits 2. The rules connected with creation of PCB for digital circuits 3. The rules connected with creation of PCB form microprocessor circuits 4. The rules connected with testing process during PCB's computer design	
Work placement	Not applicable	