GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056085					
Field of study	Mechanical and Medical Engineering					
Date of commencement of studies	October 2022		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	3		Language of instruction		Polish	
Semester of study	5		ECTS credits		1.0	
Learning profile	general academic profile		Assessment form		assessment	
Conducting unit	Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology					
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Marek Galewski			
	Teachers					

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	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	Teaching students basics of programming in Matlab environment

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U08] he/she is able to assess whether proposed methods and tools can be used in practice to solve simple engineering task related to machine design, manufacturing and utilization	Student selects tools and programing functions adequate to a given task	[SU4] Assessment of ability to use methods and tools
	[K6_W13] he/she has knowledge related to application of engineering approaches in medicine or application of medical devices and rehabilitation devices	Student describes appplictions of essential programming tools	[SW1] Assessment of factual knowledge
	[K6_U06] he/she has skills to work in industry and follow the rules of safety regulations, he/she is able to analyze basic economics problems to delineate the direction of solution by using engineering methods	Student processes data files typical for medical applications	[SU3] Assessment of ability to use knowledge gained from the subject
	[K6_W07] he/she is able to design, manufacture and utilize machine parts and technical devices, he/she can prepare a technical documentation	Student writes simple function / programms in Matlab environment	[SW3] Assessment of knowledge contained in written work and projects

Subject contents	Matlab - repetition of basics (matrices, plots, scripts) file operations basics of programming: functions, loops, conditional statements elements of algorithms source code development rules ODE solving signal spectrum calculation
Prerequisites and co-requisites	Konwledge on the subjects of "basics of IT in medicine"

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Written test	55.0%	65.0%
		0.0%	0.0%
	Finishing exercises given during classes	60.0%	35.0%

Recommended reading	Basic literature	mathworks.com website
		B. Hahn, D. Valentinr, Essential MATLAB for Engineers and Scientists, 2019
	Supplementary literature	Matlab tutorials
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	A list of examplary tasks / questions will be presented at least 1 mont before the final test

Work placement	Not applicable

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