GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00060098		
Field of study	Civil Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Optional subject group
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	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department Of Structural Mechanics -> Faculty Of Civil And Environmental Engineering -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Żerdzicki	
	Teachers	dr inż. Krzysztof Żerdzicki mgr inż. Łukasz Żmuda-Trzebiatowski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	10.0	10.0	0.0	0.0	20

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	20	0.0	0.0	20

Subject objectives

Aim of the subject is to get to know the basic programming principles and learn how solve the basic engineering problems using Matlab software.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U05] Conducts research (obtaining information, simulations, experimental methods) in the field of construction in order to solve specific tasks and report research results.	Students get basic knowledge in computer programming. Students are able to solve basic engineering problems using Matlab software.	[SU4] Assessment of ability to use methods and tools
[K6_W05] Demonstrate knowledge and understanding of research methods (obtaining information, simulations, experimental methods) in the field of civil engineering.	Students get basic knowledge in computer programming. Students are able to solve basic engineering problems using Matlab software.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

1. Manual and automatic building of matrixes. Basic operations on matrixes. Elementwise operations. Linear algebry.

2. Creating of 2D and 3D graphs.

3. Applying of the "While" and "For" loops, and IF conditionally execute statements.

4. Creating and using of "Function", writing basic scripts.

Prerequisites and co-requisites

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	70.0%
		60.0%	30.0%
Recommended reading	Basic literature	1. Podstawy Programowania w języku MATLAB, R. Jankowski, I. Lubowiecka, W. Witkowski, Wyd. PG Gdańsk 2003, 2. MATLAB i jego środowisko, I. Lubowiecka, A. Ambroziak, Wyd. PG Gdańsk 2016	
	Supplementary literature	1. Materiały dydaktyczne do laboratorium (e-nauczanie), M. Kujawa, Ł. Smakosz.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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