GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Informatics, PG_00055818		
Field of study	Ocean Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2021/2022
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
Mode of study	Full-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	assessment
Conducting unit	Faculty of Ocean Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Marcin Życzkowski	
	Teachers	dr inż. Marcin Życzkowski dr inż. Paulina Strąkowska	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	15.0	0.0	45

E-learning hours included: 0.0

Adresy na platformie eNauczanie:

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	45	5.0	50.0	100

Subject objectives

The aim of the course is to master the skills in the field of programming, problem solving and algorithm creation, building block diagrams and using pseudo code and scripting language in the Matlab environment. Writing programs, creating functions and procedures. Using tables and variables of various types. Using functions that allow you to visualize test results in the MAtlab and MsExcel environments

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U01] can obtain information from literature, databases and other sources, can verify and organize the obtained information, interpret them and form conclusions and justified opinions	The student is able to independently develop a solution using a flowchart and scripting language in the MATlab environment.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
[K6_W04] has a basic knowledge in IT, electronics, automation and control, computer graphics useful to understand the possibilities of their application in ocean technology	Learning to conduct basic analyzes using the created models in MATlab. Acquisition of the ability to design algorithms	[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects

Subject contents

The thematic scope of the classes includes the basics of computer science and science about programming, problem solving and algorithm creation, construction of block diagrams and using pseudo code and script language in the Matlab environment. Writing programs, creating functions and procedures. Using tables and variables of various types. Using functions that allow you to visualize test results.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
umiejętność rozwiązywań problemów. algorytmy	60.0%	100.0%

Recommended reading

Basic literature

- http://www.mathworks.com/
- Working with Matlab (or octave). A Tutorial (Chicago Univ.)
- Matlab Tutorial (Utah)
- Matlab Summary and Tutorial
- Microsoft Support

	Supplementary literature	• A Practical Introduction to Matlab (Updated for Matlab 5) • CTM: Control Tutorials for Matlab • MATLAB Tutorial (UMD) • Scilab (free version of Matlab)
	eResources addresses	
Example issues/ example questions/ tasks being completed	Function construction. Input and output parameters. Application of functions and algorithms. Searching for vector and matrix elements that meet given conditions, sorting, checking if a given number is a prime number, compute greatest common divisor, calculating factorials, recursion.	
Work placement	Not applicable	