GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00051066		
Field of study	Technical Physics		
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 Subject group related to scientific research 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	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Theoretical Physics and Quantum Information -> Faculty of Applied Physics and Mathematics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Patryk Jasik	
	Teachers	dr inż. Patryk Jasik	

Lesson types and methods of instruction

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

E-learning hours included: 0.0

Adresy na platformie eNauczanie:
Proceduralne Języki Programowania (2022) - Moodle ID: 20209
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20209

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	25.0	75

Subject objectives

Student learns procedural programming in the selected programming language (e.g C language).

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_U03	The student is able to program in C language.	[SU1] Assessment of task fulfilment
K6_W05	The student can write programs in the C language using appropriate libraries.	[SW3] Assessment of knowledge contained in written work and projects
K6_K01	The student understands the need to learn and get to know well-known technologies.	[SK2] Assessment of progress of work

Subject contents

Lecture:
Classification, similarities, and differences between programming languages. Introduction to programming in C language. Programming technique using procedural programming languages. Classification and description of the basic libraries used in programming in C. Discussion of the lexical units occurring in C. Classification and description of the main control blocks in C. Discussion of the syntax and mode of action: functions, tables, and pointers. Description of the preprocessor and its fundamental directives. Classification and description of operations on files. Action on strings. Discussion of the structure, union, and bit-fields.

Exercises in the computer laboratory: the lecture contents are realized in the practical examples.

Prerequisites and co-requisites

Basic knowledge of operating systems Unix / Linux and MS Windows.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Two tests of the practical skills of programming	50.0%	50.0%
A written knowledge test of the lecture	50.0%	25.0%
Five very short tests of the practical skills of programming	50.0%	25.0%

Recommended reading	Basic literature	B.W. Kernighan, D.M. Ritchie, „C Programming Language", Prentice Hall C.L. Tondo, S.E. Gimpel, „The C Answer Book: Solutions to the Exercises in "The C Programming Language", Prentice Hall I. Sommerville, „Software Engineering", Addison Wesley "C Programming", from Wikibooks, the open-content textbooks collection
	Supplementary literature	N. Wirth, „Algorithms + Data Structures = Programs", Prentice Hall S. Prata, „C Primer Plus", Sams S. Oaulline, „Practical C Programming", O'Reilly Media
	eResources addresses	Proceduralne Języki Programowania (2022) - Moodle ID: 20209 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=20209
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	