GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Fundamentals of computing II, PG_00053182		
Field of study	Electrical Engineering		
Date of commencement of studies	October 2020	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	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Control Engineering -> Faculty of Electrical and Control Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Paweł Kowalski	
	Teachers	dr inż. Paweł Kowalski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	10.0	0.0	0.0	20.0	0.0	30

E-learning hours included: 0.0

Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=17113
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	30	5.0	65.0	100

Subject objectives

Acquire the skills to develop a complex programs in C and C++

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_K01	The student is aware of the need for continuous education in the field of computer science.	[SK3] Assessment of ability to organize work [SK5] Assessment of ability to solve problems that arise in practice [SK2] Assessment of progress of work
K6_W07	The student designs graphic and console applications using the C / C ++ language. Applies advanced operations on character arrays, structures, and arrays of structures. Writes applications that use binary text files.	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects
K6_U01	The student works independently looking for solutions to the problems encountered in the documentation and on internet forums. Identifies and removes the causes of incorrect program operation. Collecting information necessary for the implementation of the project.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU5] Assessment of ability to present the results of task

Subject contents	Operations with the strings. User-defined structure data type in C/C++. Operations with the variables and arrays of structures.Variables and arrays of structures as function parameters. Designing the Graphical User Interface and event handling.File type. Operations on binary and text files using variables and arrays of a simple type.Writing, reading, and modifying the file using variables and arrays of the structures.
Prerequisites and co-requisites	Informatyka I

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
	50.0%	40.0%
	50.0%	40.0%
	50.0%	20.0%

Recommended reading

Basic literature	1. R. Smyk, M. Czyżak, A. Opaliński, Wybrane mechanizmy programowania w językach C i C++. 2. Drozdek A., Simon D. L.: Struktury danych w języku C, WNT, Warszawa. 3. Kernighan B., Richie D. - Język ANSI C, Helion, Gliwice.
Supplementary literature	1. Wróblewski P. - Algorytmy, struktury danych i techniki programowania, Helion, Gliwice. 2. Ganczarski J., Owczarek M.: C++ Wykorzystaj potęgę aplikacji graficznych, Helion, 2008.
eResources addresses	

Example issues/ example questions/ tasks being completed	• Building data structures representing the structure of the university: university, faculties, students. • Writing and reading data about employees or students from a file. • Creating an array of structures from text files and writing it to binary files. • Designing a graphical interface to an expert system. • Implementation of an expert system.
Work placement	Not applicable