GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Informatics, PG_00059006		
Field of study	Materials Engineering, Materials Engineering, Materials Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2022/2023
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	6.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Electrochemistry, Corrosion and Materials Engineering -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Łukasz Gaweł	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	30.0	15.0	0.0	75

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	75	5.0	70.0	150

Subject objectives

Advanced mastery of Excel spreadsheets, by learning to handle data experimental data, their statistical analysis, and the creation of basic programs for their processing. In addition, the student will acquire knowledge of basic programming in the Python language, in order to enable visualisation of experimental data using Matplotlib libraries.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K6_W05	The student has knowledge of how to use a computer, of extension files for various purposes and how to process them.	[SW1] Assessment of factual knowledge
K6_K01	Student is able to use libraries, and research aids to improve his/her competence in the use of data analysis programs	[SK4] Assessment of communication skills, including language correctness [SK2] Assessment of progress of work
K6_W01	Student has knowledge of statistical analysis, regression equations and how to apply them to experimental data correctly	[SW1] Assessment of factual knowledge
K6_U04	The student is able to use a variety of software to analyse and process experimental data.	[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment

Subject contents

Lectures: 1-8 Use of spreadsheets in practice, discussion of MS Office and related packages

9-15 Use of the Python language in handling experimental data

Prerequisites and co-requisites

Basic knowledge of computer use and peripheral equipment
Knowledge of the Windows environment

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
laboratory	60.0%	60.0%
lecture	60.0%	40.0%

Recommended reading	Basic literature	Excel 2016 PL. Programowanie w VBA- A. Michael, R. Kuslejka Matplotlib for Python Developers- A. Yim, C. Chung, A. Yu
	Supplementary literature	Excel 2016 PL. Programowanie w VBA- A. Michael, R. Kuslejka Matplotlib for Python Developers- A. Yim, C. Chung, A. Yu
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Use of if functions. Statistical analysis of experimental data using the t-student test.	
Work placement	Not applicable	