GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Informatics, PG_00061893
Field of study	Materials Engineering

Date of commencement of studies	October 2023	Academic year of realisation of subject	2023/2024
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	1	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment

Conducting unit	Department Of Corrosion And Electrochemistry -> Faculty Of Chemistry -> Wydziały Politechniki Gdańskiej

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Łukasz Gaweł
	Teachers	dr inż. Łukasz Gaweł

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30	5.0	15.0	50

Subject objectives	Mastering the Excel spreadsheet at an advanced level by learning how to process experimental data, its statistical analysis, and the use of charts and pivot tables. Additionally, the use of the Word and PowerPoint will be discussed.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W01] Has knowledge of selected branches of mathematics, useful for formulating and solving problems and describing mechanical and physical phenomena, and chemical processes.	The student has knowledge of statistical analysis, regression equations and how to use them correctly for experimental data	[SW1] Assessment of factual knowledge
	[K6_U04] Can use information and communication techniques used for the execution of typical engineering tasks, can apply learnt methods and mathematical and physical models to describe and explain chemical phenomena and processes.	The student is able to use various software to analyze and process experimental data.	[SU4] Assessment of ability to use methods and tools
	[K6_W05] Has the knowledge of mechanics, technology and electrical engineering, including engineering graphics and using computer aid, the use of databases in the design of technological processes.	The student has knowledge of computer operation, extension files for various purposes, and how to process them.	[SW1] Assessment of factual knowledge
	[K6_K01] Understands the need to improve professional and personal competencies; is conscious of own limitations and knows when to turn to experts, properly establishes priorities helping to accomplish tasks defined by oneself or others.	The student is able to use libraries and teaching aids to improve his/her competences in the use of data analysis programs	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents	Use of spreadsheets in practice, discussion of MS Office and related packages. Regression lines, creating charts, pivot tables.		
Prerequisites and co-requisites	Basic knowledge of mathematics, function flow and statisticsBasic knowledge of using computers and peripheral devicesKnowledge of using the Windows environment		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	laboratory	60.0%	100.0%
Recommended reading	Basic literature	Microsoft Excel 2013. Step by step - CONT. Frye Excel 2016 PL. Programming in VBA - A. Michael, R. Kuslejka	
	Supplementary literature	Online documentation, courses and step-by-step videos available on the Internet on popular websites.	
	eResources addresses	Adresy na platformie eNauczanie: Informatyka - Moodle ID: 33382 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33382 Informatyka I 2023 - Moodle ID: 34775 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34775	
Example issues/ example questions/ tasks being completed	Description of experimental data using regression functions. Using the if function. Statistical analysis of experimental data.		
Work placement	Not applicable		

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