

## GDAŃSK UNIVERSITY

## Subject card

Subject name and code	Analysis of experimental data of polymeric materials in Linux environment, PG_00069277							
Field of study	Chemical Technology							
Date of commencement of studies	February 2025		Academic year of realisation of subject			2025/2026		
Education level	second-cycle studies		Subject group					
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 Polymer Technology -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej							
Name and surname	Subject supervisor	ichał Strankow	ski					
of lecturer (lecturers)	Teachers							
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM
of instruction	Number of study hours	15.0	0.0	30.0	0.0		0.0	45
	E-learning hours inclu	uded: 0.0		1				
Learning activity and number of study hours	Learning activity	Participation in classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM
	Number of study hours	45		5.0		25.0		75
Subject objectives	This course aims to introduce students to the Linux operating system and equip them with practical skills in utilizing free software (such as Gnuplot, Python with NumPy, SciPy, and Matplotlib libraries) for the analysis, visualization, and automated processing of experimental data derived from polymer material studies (e.g., DSC, TGA, DMA techniques, and spectroscopy).							
Learning outcomes	Course outcome Subject outcome Method of verification							fication
	[K7_K101] acknowledges the importance of knowledge related to the field of study in solving cognitive and practical problems, critically assessing the information obtained		The student understands the importance of knowledge related to their field of study in solving cognitive and practical problems, critically evaluating acquired information.			[SK5] Assessment of ability to solve problems that arise in practice [SK2] Assessment of progress of work		
	[K7_U01] designs experiments using computer methods of data analysis, computer simulations and based on the state of the knowledge in accordance with the latest scientific literature		The student is able to design experiments using computer- based data analysis methods, computer simulations, and based on the current state of scientific knowledge.			[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information		
	[K7_U06] applies computer, statistical and specialised database methods to solve scientific and technological problems in technology and related fields		The student is able to apply IT methods, statistical methods, and specialized databases to solve scientific and technological problems in polymer technology and related fields.			[SU4] Assessment of ability to use methods and tools		
	[K7_K01] critically evaluates the content of cognitive and practical problems		The student is able to critically evaluate content related to cognitive and practical problems.			[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice		
	[K7_W03] selects methods of data analysis, including statistical and modelling, useful for solving scientific and technological problems		The student is able to select data analysis methods, including statistical and modeling techniques, useful for solving scientific and technological problems.		data g	[SW1] Assessment of factual knowledge		
Subject contents	-							
Prerequisites and co-requisites	Basic knowledge of p with Linux or program	olymer chemis nming is not rec	try and instrum juired.	iental analytica	l metho	ds is reo	quired. Prior ex	perience

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade		
	Final project	50.0%	50.0%		
	Lab report	50.0%	50.0%		
Recommended reading	Basic literature -				
	Supplementary literature	-			
	eResources addresses	S			
Example issues/ example questions/ tasks being completed	-				
Work placement	Not applicable				

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