



Subject card

Subject name and code	Information technologies, PG_00060836						
Field of study	Chemical Technology						
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 Physical Chemistry -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Adam Kloskowski				
	Teachers		dr hab. inż. Adam Kloskowski				
			dr inż. Mateusz Kogut				
			dr inż. Anna Kuffel				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	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	15		5.0		30.0	50
Subject objectives	The aim of the course is also for the student to acquire the ability to use information technology tools to support his/her learning and work organization. During the classes, the basics of IT techniques, text processing, spreadsheets and tools dedicated to chemical sciences will be presented						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W06] has knowledge of information technology and computer-aided design, the use of databases in technological design		After completing the course, the student should: 1) be fluent in using advanced functions of MS Office programs (Word, Excel). 2) Use a spreadsheet to solve data analysis problems.		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_K05] is aware of the social role of a technical university graduate, and in particular understands the need to formulate and communicate to the public, in particular through the mass media, information and opinions on the achievements of technology and other aspects of engineering activity		The student is able to prepare and present a project presentation using appropriately selected computer programs. The student has the ability to analyze information in the context of the impact of decisions made on the environment. Is aware of the responsibility for the decisions made. He is able to work in a group and individually and is aware of the need to meet deadlines.		[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work		

Subject contents	The program content is implemented in the form of laboratory classes The laboratory program is divided into three thematic blocks: BLOCK 1. Creating documents using MS Word, editing mathematical formulas, BLOCK 2. Support for chemical formula editors (ISIS, Biovia Draw) BLOCK 3. Using the MS Excel spreadsheet for chemical calculations and data analysis and presentation								
Prerequisites and co-requisites									
Assessment methods and criteria	<table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>test</td><td>50.0%</td><td>100.0%</td></tr></table>	Subject passing criteria	Passing threshold	Percentage of the final grade	test	50.0%	100.0%		
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Recommended reading	<table><tr><td>Basic literature</td><td>W. Sikorski : Podstawy technik informacyjnych , PWN 2004 D. Hawley, R. Hawley, 100 sposobów na Excel 2007 PL. Tworzenie funkcjonalnych arkuszy, Helion, Warszawa 2008</td></tr><tr><td>Supplementary literature</td><td>J. Czermiński i inni, Metody statystyczne dla chemików, PWN, Warszawa 1986</td></tr><tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr></table>	Basic literature	W. Sikorski : Podstawy technik informacyjnych , PWN 2004 D. Hawley, R. Hawley, 100 sposobów na Excel 2007 PL. Tworzenie funkcjonalnych arkuszy, Helion, Warszawa 2008	Supplementary literature	J. Czermiński i inni, Metody statystyczne dla chemików, PWN, Warszawa 1986	eResources addresses	Adresy na platformie eNauczanie:		
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Example issues/ example questions/ tasks being completed	https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30198								
Work placement	Not applicable								

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