



## 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	<p>The program content is implemented in the form of laboratory classes</p> <p>The laboratory program is divided into three thematic blocks:</p> <p>BLOCK 1. Creating documents using MS Word, editing mathematical formulas,</p> <p>BLOCK 2. Support for chemical formula editors (ISIS, Biovia Draw)</p> <p>BLOCK 3. Using the MS Excel spreadsheet for chemical calculations and data analysis and presentation</p>								
Prerequisites and co-requisites									
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="456 546 794 577">Subject passing criteria</th> <th data-bbox="799 546 1137 577">Passing threshold</th> <th data-bbox="1142 546 1481 577">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 580 794 607">test</td> <td data-bbox="799 580 1137 607">50.0%</td> <td data-bbox="1142 580 1481 607">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	test	50.0%	100.0%
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Recommended reading	Basic literature	<p>W. Sikorski : Podstawy technik informacyjnych , PWN 2004</p> <p>D. Hawley, R. Hawley, 100 sposobów na Excel 2007 PL. Tworzenie funkcjonalnych arkuszy, Helion, Warszawa 2008</p>							
	Supplementary literature	J. Czermiński i inni, Metody statystyczne dla chemików, PWN, Warszawa 1986							
	eResources addresses	Adresy na platformie eNauczenie:							
Example issues/ example questions/ tasks being completed	<a href="https://enauczenie.pg.edu.pl/moodle/course/view.php?id=30198">https://enauczenie.pg.edu.pl/moodle/course/view.php?id=30198</a>								
Work placement	Not applicable								