



Subject card

Subject name and code	Computer Science, PG_00048752						
Field of study	Green Technologies						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2020/2021		
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			4.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Analytical Chemistry -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Bożena Zabiegała					
	Teachers	prof. dr hab. inż. Bożena Zabiegała dr inż. Wojciech Wojnowski Klaudia Pytel dr hab. inż. Błażej Kudłak dr inż. Bartłomiej Cieśliak					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	45.0	0.0	0.0	60
	E-learning hours included: 0.0 Adresy na platformie eNauczenie:						
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	60		2.0		38.0	100
Subject objectives	<p>The aim of the course is to prepare students for active living and functioning in modern society; to develop conscious and effective ways to use computer; to provide students with modern methods and tools of computer science.</p> <p>To develop an ability to select appropriate computer tools to comprehend different tasks, especially the ones using computer abilities to carry out a statistical and numerical analysis of set of data from chemical experiments.</p> <p>To teach a student using computer programs offered in the package MS Office (Excel, PowerPoint)</p> <p>To teach student AutoCad software.</p>						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_K06] has awareness of the importance of non-technical aspects and effects of engineering activities, including its impact on the environment and the associated responsibility for decisions.	Student has awareness of the importance of non-technical aspects and effects of engineering activities, including its impact on the environment and the associated responsibility for decisions.	[SK3] Assessment of ability to organize work [SK4] Assessment of communication skills, including language correctness [SK1] Assessment of group work skills
	[K6_U03] is able to use information and communication technologies relevant to the common tasks of engineering, is able to use known methods and mathematical-physical models to describe and explain phenomena and chemical processes	Student is able to use information and communication technologies relevant to the common tasks of engineering	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
Subject contents	<p>The student is able, on the basis of collected experimental data, prepare a presentation, can develop a detailed documentation of the results of carried out experiments and prepare the presentation containing an overview of these results.</p> <p>Excel: become familiar with calculation sheet, knowledge of the fundamental issues related to data entry, data editing, formatting cells. Data collection and development of the measurement results, create graphs, calculate, solving equations, using Advanced Excel features-data analysis.</p> <ul style="list-style-type: none"> - mathematical basis of computer systems (numerical systems, binary coding), - measures of computers efficiency, - IT equipment - operation systems: DOS, Windows, Unix, MacOS, Android, - Internet services; Cloud Computing - software with special attention paid for chemical software, - data bases, - multimedia techniques, - internet tools and software, - application of IT in modelling - freeware as alternative for commercial solutions, - viruses and other IT threats, - networks, <p>Learning designing on the base level -create 2D drawings.</p> <p>Classes and materials were prepared with the use of skills acquired through participation in the POWER 3.4 project - "Improvement of didactic competences of academic teachers of the Gdańsk University of Technology"</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Laboratory-Colloquia during the semester	60.0%	70.0%
	Classes-Colloquia during the semester	60.0%	30.0%
Recommended reading	Basic literature	<p>W. Sikorski Podstawy technik informacyjnych, PWN, 2004,</p> <p>Pikoń J. AutoCAD 2017 PL. Pierwsze kroki Helion</p> <p>Excel dla chemików Mariusz Pilch Wydawnictwo: Mikom</p> <p>Krzysztof Masłowski, Darmowe oprogramowanie w codziennym życiu, Helion, 2009</p> <p>Robin Williams, InDesign. Projekty z klasą Helion 2012</p>	

	Supplementary literature	- Andrew S. Tanenbaum, David J. Wetherall Sieci komputerowe Wydanie V Helion 2012 - Waldemar Węglarz, Alicja Żarowska-Mazur Access 2010 Praktyczny kurs PWN 2012 - Krzysztof Wojtuszkiewicz Urządzenia techniki komputerowej 2 Urządzenia peryferyjne i interfejsy PWN 2008
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	