



## 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 Kudlak dr inż. Bartłomiej Cieślak				
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						
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"> <li>- mathematical basis of computer systems (numerical systems, binary coding),</li> <li>- measures of computers efficiency,</li> <li>- IT equipment</li> <li>- operation systems: DOS, Windows, Unix , MacOS, Android,</li> <li>- Internet services; Cloud Computing</li> <li>- software with special attention paid for chemical software,</li> <li>- data bases,</li> <li>- multimedia techniques,</li> <li>- internet tools and software,</li> <li>- application of IT in modelling</li> <li>- freeware as alternative for commercial solutions,</li> <li>- viruses and other IT threats,</li> <li>- networks,</li> </ul> <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	<table border="1" data-bbox="448 958 1487 1122"> <thead> <tr> <th data-bbox="448 958 794 1003">Subject passing criteria</th> <th data-bbox="794 958 1141 1003">Passing threshold</th> <th data-bbox="1141 958 1487 1003">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1003 794 1059">Laboratory-Colloquia during the semester</td> <td data-bbox="794 1003 1141 1059">60.0%</td> <td data-bbox="1141 1003 1487 1059">70.0%</td> </tr> <tr> <td data-bbox="448 1059 794 1122">Classes-Colloquia during the semester</td> <td data-bbox="794 1059 1141 1122">60.0%</td> <td data-bbox="1141 1059 1487 1122">30.0%</td> </tr> </tbody> </table>			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%
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Example issues/ example questions/ tasks being completed												
Work placement	Not applicable											