



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Information technologies [S1TCh2E>Tlob]

### Course

Field of study

Chemical Technology

Year/Semester

1/2

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

English

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

### Number of credit points

1,00

### Coordinators

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### Lecturers

### Prerequisites

Fundamental knowledge related to computers and their importance for human society.

### Course objective

To familiarize students with the specifics of computers. To indicate the width of areas of use of digital machines in the scientific, design and engineering environment, as well as in the area of functioning of society. Special sensitisation of students to a number of non-intuitive phenomena occurring during design, numerical or simulation calculations. The subject is profiled from a technical point of view, with particular emphasis on the application of digital tools in the field of chemical technology and engineering.

### Course-related learning outcomes

Knowledge:

The effect of teaching this subject is the knowledge of the advantages and limitations of using computer-aided techniques. Special emphasis is placed on the knowledge of the realities of computer-

aided design and the characteristics of conducting simulation calculations. (K\_W15)

Skills:

Ability to use Office. (K\_U07)

Social competences:

The student is aware of the importance of digital devices for human society. Particular emphasis is placed on the impact of digital machines on the quality and efficiency of desktop publishing and editing tasks, with particular emphasis on the chemical technology environment. (K\_K02)

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Ongoing check of the degree of mastery of the material on colloquia. In the case of stationary classes, colloquia are given in a computer laboratory, while in the case of online classes colloquia are given using the university's network and computer infrastructure (VPN) via the Remote Desktop Protocol (RDP) using a remote desktop connection tool.

### Programme content

Issues concerning application of digital tools in the field of chemical technology and engineering.

### Course topics

Word: Formatting tables and text, using automatic (active) endnotes, signatures, references. Writing using styles (Heading 1, 2...), generating tables of contents and writing individual chapters in separate files and then their composition into one document.

Excel: Formatting text, calculations with formulas, statistical elements, graphs, working with pivot tables and charts.

PowerPoint: Preparation of short presentations, presentation during classes.

Other tools: Basic options for creating chemical formulas.

### Teaching methods

Presentation of the functioning of applied tools, current exercises performed by students in computer laboratories.

### Bibliography

Basic:

Office 2010: praktyczny kurs: PowerPoint 2010, Word 2010, Excel 2010, Access 2010 / Alicja Żarowska-Mazur, Waldemar Węglarz. Autor: Żarowska-Mazur, Alicja., Węglarz, Waldemar. Wydawnictwo Naukowe PWN, 2012.

Additional:

Microsoft Office 2007 PL w biurze i nie tylko / Piotr Wróblewski. Autor: Wróblewski, Piotr (informatyka). "Helion", 2007.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	10	0,50