



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Grafika inżynierska (Engineering graphics)

### Course

Field of study

Technologia Chemiczna (Chemical Technology)

Area of study (specialization)

-

Level of study

First-cycle studies

Form of study

part-time

Year/Semester

I/2

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

10

### Number of credit points

3

### Lecturers

Responsible for the course/lecturer:

Dr Eng. Joanna Łechtańska

Responsible for the course/lecturer:

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Faculty of Chemical Technology

ul. Berdychowo 4, 60-965 Poznan

### Prerequisites

Student should have basic knowledge in the field of technical drawing - engineering graphics and computer skills. The student should also have basic skills in making and reading technical documentation.

### Course objective

The aim of the course is to acquaint students with computer aided design. The student also acquires the basic skills to perform 2D drawings in AutoCad.

### Course-related learning outcomes

Knowledge

1. A student demonstrates a basic knowledge of technical drawing in the scope of principles and methods of presenting technical drawing in AutoCAD.

K\_W13



### Skills

1. A student has the ability to use the AutoCAD computer program to make technical drawings

KU\_07

2. A student is able to design simple devices, apparatuses, objects, systems or plan processes typical for chemical technology in accordance with the given specification using the AutoCAD program

K\_U15

### Social competences

1. A student demonstrates the need for continuous training and raising their professional and personal qualifications.

K\_K01

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge and skills acquired during the course are checked based on grade from final test. Activity during the course are also assessed. Passing threshold: 50% of points.

### Programme content

Within the course, students learn the basics of drawing in AutoCAD, which include:

- getting to know the AutoCad screen (drawing area, command window, top menu, tool windows),
- communication with the program (commands, tool windows, top menu, keyboard commands),
- point indicating (cursor, keyboard, characteristic points) and entering coordinates,
  - drawings and commands (line, circle, arc, move, copy, offset, array, rectangle, chamfer, round, rotation)
- drawing modification methods (cut, extend, mirror, hatches, break, undo),
- drawing dimensioning,
- creating drawings using the above basic functions in the AutoCad program.

### Teaching methods

1. Presentation of the program and its basic functions by working in AutoCAD using a projector and performing design tasks by students in AutoCAD on desktop computers.

2. Drawing and designing exercises passed on sheets ordered to be performed in AutoCAD.

### Bibliography

#### Basic

1. Pikoń A.: AutoCAD 2016 PL : pierwsze kroki, Helion, Gliwice 2016 (in Polish)

#### Additional

1. Rysunek techniczny dla mechaników, Podręcznik, Lewandowski, T., WSiP: Warszawa, 2018 (in Polish)



2. Rysunek techniczny maszynowy, Dobrzański, T., Wydawnictwo Naukowe PWN: Warszawa, 20203 (in Polish)

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	3,0
Classes requiring direct contact with the teacher	20	1,2
Student's own work (literature studies, preparation for projects, preparation for test, project preparation) <sup>1</sup>	30	1,8

<sup>1</sup> delete or add other activities as appropriate