



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Engineering Graphics - AutoCad basics [S1IFar2>Glacp]

Course

Field of study

Pharmaceutical Engineering

Year/Semester

1/2

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

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

prof. dr hab. inż. Marek Ochowiak
marek.ochowiak@put.poznan.pl

Lecturers

Prerequisites

As preliminary requirements the student should have an elementary knowledge of the basics of mathematics and engineering graphics. He should also have the ability to make and read technical documentation.

Course objective

Practical knowledge of computer aided design. In addition, the student acquires the ability to perform drawings using basic functions in the AutoCad program. AutoCad 2D course - basic level.

Course-related learning outcomes

Knowledge:

1. Has knowledge of the principles of technical drawing and computer aided 2D design. [K_W1]
2. Has knowledge of basic drawings in AutoCad. [K_W1]

Skills:

1. Use the understanding of the indicated sources of knowledge (list of basic literature) and acquire knowledge from other literature sources, including electronic ones. [K_U1]

2. Is able to read and make technical drawings and technological diagrams, can use a selected computer program to create them. [K_U18]

Social competences:

1. He understands the need for further training and raising his professional competences, is aware that the acquired knowledge and skills will allow him to compete in the labor market. [K_K1]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Test. Assessment of class activity. If the classes will be held remotely, the forms of course assessments will remain unchanged and will be carried out with the use of tools provided by the Poznań University of Technology (<https://elearning.put.poznan.pl/>).

Programme content

The program covers the following topics:

1. AutoCad basics: menus and windows, communicating with the program.
2. Basic program functions.
3. Drawings and commands.
4. Creating basic drawings in AutoCad.

Course topics

The following topics are covered throughout the classes:

- AutoCad screen: drawing area, command window, top menu, tool windows,
- communication with the program (commands, tool windows, top menu, keyboard commands),
- point pointing (cursor, keyboard, characteristic points),
- entering coordinates,
- fixed location modes - the object,
- drawings and commands: line, circle, arc, move, copy, offset, array, rectangle, chamfer, fillet, rotation,
- cut, extend, mirror, hatch-edit, zoom, smash, undo.
- types of lines, loading,
- color of objects,
- width of objects,
- changing the features of objects (color, line type, layer, line width),
- entering descriptions,
- line types,
- dimensioning drawings
- execution using the above functions of basic drawings in the AutoCad program.

Teaching methods

Multimedia presentation, pdf materials.

Bibliography

Basic:

1. Kłosowski P., Ćwiczenia w kreśleniu rysunków w systemie AutoCAD 2010 PL, 2011 PL, Wydawnictwo Politechniki Gdańskiej, Gdańsk 2010.
2. Pikoń A., AutoCAD 2020 PL : pierwsze kroki, Helion, Gliwice 2020.

Additional:

1. Agaciński P., Grafika Inżynierska, Wydawnictwo Politechniki Poznańskiej, 2014.
2. Dobrzański T., Rysunek techniczny maszynowy, WNT Warszawa 2019.
3. Babiuch M., AutoCAD 2012 i 2012 PL : superprojekt od ręki? z autoCAD-em 2012!, Helion, Gliwice, 2016.

Breakdown of average student's workload

	Hours	ECTS
Total workload	30	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)	15	0,50