



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Engineering graphics

Course

Field of study

Circular System Technologies

Area of study (specialization)

-

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

1/1

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

30

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

Piotr Wesołowski, Ph.D

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Responsible for the course/lecturer:

Faculty of Chemical Technology

Institute of Chem. Technology and Engineering

Department of Process Engineering

60-965 Poznan, 4 Berdychowo street, 116B

Prerequisites

The student starting this subject should have a basic knowledge of mathematics, geometry and calligraphy. He should also be able to use tools for technical drawing.



Course objective

The aim of the course is to provide students with basic knowledge of engineering graphics necessary for the correct design, creation and reading of technical drawings. Developing skills in using tools for drawing, planning and presenting structural and technological elements of machine parts and entire products.

Course-related learning outcomes

Knowledge

1. The student knows the methods and principles of graphical notation of the construction (K_W19).
2. The student knows the nomenclature, construction and principle of operation of structural elements of machines and mechanical devices (K_W20).
3. The student has basic knowledge related to the selection of devices used in Circular System Technologies (K_W21).

Skills

1. The student is able to obtain information from literature, databases and other sources related to Circular System Technologies, also in a foreign language, integrate them, interpret them, and draw conclusions and formulate opinions (K_U01).
2. The student is able to plan and organize work individually and in a team (K_U08).
3. The student can read and execute technical drawings and technological schemes (K_U18).

Social competences

1. The student demonstrates independence and inventiveness in individual work, as well as effectively interacts in a team, playing various roles in it; objectively assesses the effects of his own work and that of team members (K_K02).
2. The student objectively assesses the level of his knowledge and skills, understands the importance of improving professional and personal competences adequately to the changing social conditions and the progress of science (K_K05).
3. The student participates in discussions and is able to conduct discussions, is open to different opinions and ready to assertively express feelings and critical remarks (K_K08).

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Current control activity.

Presentation and defense of the completed project in front of the group.

Programme content

Within the course students learn the basics of technical drawing, which include: standardized elements of technical drawing (including technical writing), geometric constructions, rectangular projection by various methods, axonometric projection, views, cross-sections and their types as well as dimensions,



principles and methods of dimensioning, as well as various types of structural element connections. Projects of engineering graphics are carried out in pencil.

Teaching methods

1. Participation in the lecture.
2. Participation in consultations.

Bibliography

Basic

1. Dobrzański T., Rysunek techniczny maszynowy, WNT, Warszawa, 2015.

Additional

1. Lewandowski T., Rysunek techniczny dla mechaników, WSiP, Warszawa, 2018.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	38	1,5
Student's own work (literature studies, preparation for tutorials, preparation for tests, project preparation) ¹	37	1,5

¹ delete or add other activities as appropriate