COURSE DESCRIPTION CARD - SYLLABUS

Course name
undamentals of engineering graphics

Course

Field of study
Mechanical Engineering
Year/Semester
1/2
Area of study (specialization)
Profile of study
general academic
Level of study
First-cycle studies
Course offered in
Polish
Form of study
part-time
Requirements
compulsory

Number of hours

Lecture
0
Laboratory classes
0
Other (e.g. online)
0
Tutorials
20
Projects/seminars
0

Number of credit points

3

Lecturers

Responsible for the course/lecturer:
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Faculty of Mechanical Engineering

ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:
second person allowed

Prerequisites

KNOWLEDGE: the student has knowledge of the basics of engineering graphics (lectures and exercises sem.1).

SKILLS: the student knows how to obtain information and correctly select its sources. He/she has the ability to record the structure (geometric form, layout of dimensions, surface condition).

SOCIAL COMPETENCES: the student understands the need for self-education, is able to cooperate in a group and define tasks and priorities for their realization.

Course objective

Shaping and developing spatial imagination and practical recording of structures within the scope defined by the program content.

Course-related learning outcomes

Knowledge

Students have the knowledge to record the construction in engineering graphics in accordance with the rules (standards).

Skills

Students have the ability to self-learn, among other things, to "improve" his/her professional competence.

Students can reproduce and dimension machine elements and apply other elements of drawing documentation.

Social competences

Students understand the need for lifelong learning; can inspire and organise the learning of others.

Students can interact and work in a group, assuming different roles.

Students can identify priorities for achieving a specific task or tasks.

Students can correctly identify and resolve professional dilemmas.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

control of exercise tasks as they are done, credit in the form of a drawing task.

Programme content

(1) Recording of geometrical characteristics of elements in simple and complex form: straight, complex, half-section, plate drawing, lever-type element drawing. (2) Recording of geometrical form using simplifications, dimensional arrangement and surface condition: welding drawing, screw connections, splined connections, gear, shaft, spring, cover, sleeve. (3) Drawing of mating elements: assembly drawing of the reducer node.

Teaching methods

Exercises - practical presentation of sample tasks supported by a multimedia presentation, drawing tasks.

Bibliography

Basic

1. Dobrzański T., Rysunek techniczny maszynowy, WNT, W-wa 2020.

2. Lewandowski T., Rysunek techniczny dla mechaników, WSiP, W-wa 2018.

Additional

1. Bober A, Dudziak M., Zapis konstrukcji, PWN, W-wa 1999, 2001.

2. Rydzanicz I., Rysunek techniczny jako zapis konstrukcji Zadania, WNT, Warszawa, 2004.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	40	1,6
Student's own work (literature studies, preparation for tutorials, preparation for tests) [1]	35	1,4

[1] delete or add other activities as appropriate