



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Fundamentals of engineering graphics

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### Course

Field of study

Mechanical Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

part-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

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### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

20

Projects/seminars

0

**Number of credit points**

3

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### Lecturers

Responsible for the course/lecturer:

dr inż. Rafał Mostowski

Responsible for the course/lecturer:

second person allowed

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tel. 61-6652257

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### 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	70	3,0
Classes requiring direct contact with the teacher	25	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	45	2,0

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