COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer-aided Engineering Drawing

Course

Field of study

Engineering Management

Year/Semester

sem.1

Area of study (specialization)

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

Form of study

part-time

Requirements

compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
12	10	
Tutorials	Projects/seminars	

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

dr hab. inż. Józef Gruszka, prof.PP

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tel. 665 33 77

ul. Jacka Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Basic knowledge of high school in geometry and drawing.

Course objective

Introduction of the most important information from the field of technical drawing including Polish standards.

Familiarization with electrical, architectural and construction drawings and machine construction based on the information from the machine drawing. The ability to read technical drawing.

Course-related learning outcomes

Knowledge

P6S_WG_08knows the methods and tools for data collection, processing and selection and distribution of information

P6S_WK_11 has basic knowledge of the nature of management sciences and their place, and relationships with contextual and ergological sciences

P6S_WK_16 knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of machine construction and operation

Skills

P6S_UW_09 can plan and carry out experiments, including computer measurements and simulations, interpret obtained results and draw conclusions

P6S_UW_10 is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks

P6S_UW_14 is able to identify design tasks and solve simple design tasks in the field of machine construction and operation

P6S_UW_15 can apply typical methods for solving simple problems in the field of machine construction and operation

Social competences

P6S_KO_03is able to prepare and implement business ventures

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative evaluation:

a) Laboratory: based on the assessment of the current exercise progress of the technical drawing

b) Lecture: based on the answers to questions concerning the material from previous lectures

Summary evaluation:

a) Laboratory: credit in the form of technical drawings from the implemented contents of the program

b) Lecture: credit in the form of a selection test

Programme content

The program of subject includes the following topics: types of drawings, sheet formats, standardized technical drawing elements, types and distribution of sections, views and intersections, dimensioning, tolerance of dimensions, shape and position , determination of surface roughness and waviness, connection of machine parts, axles, arbour, bearings, clutches and brakes. Drawing and reading of schemes: mechanical, hydraulic, pneumatic, thermal energy and vacuum technology, electrical drawing

elements, chemical and architectural - construction. Drawings: Executives, assemblies, graphs and nomograms.

Teaching methods

Educational methods:

a) Lecture: Monographic lecture using a computer with the division of program content into separate thematic issues in relation to the thematic scope of the exercises.

b) Laboratory: exercise method with elements of demonstration method and causerie method according to the program content.

Bibliography

Basic

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

2. Filipowicz K., Kowal A., Kuczaj M., Rysunek techniczny, Wydawnictwo Politechniki Śląskiej, Gliwice 2016.

3. Zakres aktualnych aktów normatywnych z zakresu rysunku technicznego ? wymagania ogólne.

Additional

1. Molasy R., Rysunek techniczny : chropowatość i falistość powierzchni, tolerancje geometryczne i tolerowanie wymiarów, Wydawnictwo Politechniki Świętokrzyskiej, Kielce, 2016.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,0
Classes requiring direct contact with the teacher	25	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	75	2,5

[1] delete or add other activities as appropriate