EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

## Course name

Engineering graphics

## Course

Field of study
Logistic
Area of study (specialization)

Level of study
First-cycle studies
Form of study
part-time

## Year/Semester

1/1
Profile of study
general academic
Course offered in
polish
Requirements compulsory

## Number of hours

## Lecture

## Laboratory classes

Other (e.g. online)
12
Tutorials
Projects/seminars
12
Number of credit points
2
Lecturers
Responsible for the course/lecturer:
Responsible for the course/lecturer:
dr hab. inż. Józef Gruszka, prof.PP
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## 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_01 knows the basic issues of construction, technology and techniques related to logistics

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Skills
P6S_UW_06 is able to assess and make a critical economic analysis of the selected problem, which falls within the logistics and its specific issues and supply chain management

P6S_UU_01 is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market, and based on them determine the needs of supplementing knowledge

## Social competences

P6S_KO_02 is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:
Formative evaluation:
a) Exercise: 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) Exercise: 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) Excercise: exercise method with elements of demonstration method and causerie method according to the program content.

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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 | 50 | 2,0 |
| Classes requiring direct contact with the teacher | 30 | 1,0 |
| Student's own work (literature studies, preparation for <br> laboratory classes/tutorials, preparation for tests/exam, project <br> preparation) | 20 | 1,0 |

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[^0]:    ${ }^{1}$ delete or add other activities as appropriate

