



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Geometry and engineering graphics

Course

Field of study

Electrical Engineering

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

10

Tutorials

Laboratory classes

10

Projects/seminars

Other (e.g. online)

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

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Wydział Architektury

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Responsible for the course/lecturer:

Prerequisites

Fundamental knowledge on geometry, mathematics, engineering knowledge

Course objective

Mastering the basic principles of creating design graphics and imaging of space in technical drawings.



Acquiring the ability to read technical drawing documentation. Understanding the importance of modern digital computer methods in technical drawing.

Course-related learning outcomes

Knowledge

1. Has knowledge of the life cycle, design and operation of power equipment and systems, knows and understands the principle of their operation
2. Knows and understands the principles of graphic construction mapping, projection, cross-sections, dimensioning in engineering applications
3. Zna i rozumie podstawy stosowania prawa autorskiego i ochrony własności przemysłowej i intelektualnej, wie jak korzystać z zasobów informacji patentowej

Skills

1. Can read and understand catalog cards, application notes, standards and technical documentation as well as manuals.
2. Is able to develop project documentation of an engineering task, using appropriately selected methods, techniques, tools and materials

Social competences

1. Is able to think and act in an entrepreneurial manner in the field of engineering

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Written exam from lecture, passing laboratories on the basis of completed tasks / exercises.

Programme content

1. Introductory informations, the role of graphic recording in engineering practice.
2. Methods of mapping three-dimensional objects on the drawing plane.
3. Drawing standards.
4. Graphic representation of objects at various scales of studies
7. Dimensioning
8. Form of providing documentation, good practices in this field.
9. Lettering, aesthetics and communication skills of graphic notation, elements of composition and visual identification.
10. Degrees of accuracy in graphical notation.
11. Drawing inventarisation in engineering practice



12. Reading maps, land development projects, role of GIS, reading drawings.
13. Introduction to drawing inter-branch coordination
14. Engineering computer graphics, CAD, BIM

Teaching methods

1. Lecture: multimedia presentation, supplemented with examples given on the board
2. Laboratories: Illustrated teaching boards or multimedia presentations, supplemented with examples on the board; performing the tasks given by the teacher – practical exercises

Bibliography

Basic

1. Thomae R., Perspektywa i aksonometria, Arkady 1998
2. Hanna i Jerzy Samujłło., Rysunek techniczny i odręczny w budownictwie, Arkady 1997

Additional

1. Jankowski W. Geometria Wykreślna. Wydawnictwo P.P. 1999 r.
2. Polskie Normy: PN-B-01030, PN-B-01025, PN-B-01027, PN-B-01029
3. Bajkowski J., Podstawy zapisu konstrukcji, Oficyna Wyd. Polit. Warszawskiej, 2014

Breakdown of average student's workload

	Hours	ECTS
Total workload	85	3,0
Classes requiring direct contact with the teacher	35	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	50	2,0

¹ delete or add other activities as appropriate

