POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Designing IT support

Course

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

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
8	10	
Tutorials	Projects/seminars	

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Kamil Wróbel

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Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Basic information from high school in the field of geometry and technical drawing.

Course objective

To acquaint students with the most important information in the field of Computer Aided Design (CAD), taking into account the principles of engineering graphics. Based on the information from the machine drawing, familiarization with electrical, architectural and construction drawings and machine construction. Acquiring the ability to create and read a technical drawing supporting communication in logistics.

Course-related learning outcomes

Knowledge

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1. The student knows the basic issues related to the description of structures, technologies and techniques related to logistics in technical drawings [P6S_WG_01]

Skills

1. The student is able to evaluate and critically analyze engineering projects presented in technical drawings from an economic perspective, falling within the framework of logistics and its detailed issues [P6S_UW_06]

2. The student is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and on their basis determine the need to supplement knowledge in the field of making and reading technical drawings [P6S_UU_01]

Social competences

1. The student is aware of initiating activities related to the formulation and transfer of CAD design information and cooperation in society in the area of logistics [P6S_KO_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Formative assessment: n the basis of answers to questions about the material covered in previous lectures. Summative assessment: credit in the form of technical drawings of the implemented program content.

Laboratory: Formative assessment: on the basis of the assessment of the current progress in the implementation of laboratory tasks from the technical drawing. Summative assessment: credit in the form of technical drawings of the implemented program content.

Passing threshold: 51% of points.

Grading system:

Points			Grade:
0	-	50	Fail (2)
51	-	59	Satisfactory (3)
60	-	69	More than satisfactory but less than good (3+)
70	-	79	Good (4)
80	-	89	Very good (4+)
90	-	100	Excellent (5)

Programme content

Lecture: Engineering graphics: types of drawings, sheet formats, standardized elements of a technical drawing, types and arrangement of projections, views and sections, dimensioning, tolerance of

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dimensions and shape and position, determination of surface roughness and waviness, connections of machine parts, axles, shafts, bearings, clutches and brakes. Drawing and reading diagrams: mechanical, hydraulic, pneumatic, thermal energy and vacuum techniques, elements of electrical, chemical, architectural and construction drawing. Drawings: executive drawings, assembly drawings, charts and nomograms.

Laboratory: AutoCAD: construction and communication with the program, properties and modifications of drawing elements, introducing drawing elements, dimensioning and drawing description, creating text and tables, creating blocks, page and print settings, creating a 2D drawing, creating basic and advanced solid models.

Teaching methods

Lecture: Monographic lecture with the use of a computer with the division of the program content into separate thematic issues in connection with the thematic scope of the exercises. The method of exposing in the form of a show.

Laboratories: Laboratory method with elements of a demonstration method and talks according to the program content.

Bibliography

Basic

1. Gruszka J., Wróbel K., Radecki A., Zarządzanie doborem narzędzi inżynierskiej grafiki komputerowej w projektowaniu ergonomicznym, Wydawnictwo Politechniki Poznańskiej, Poznań, 2024.

2. Dobrzański T., Rysunek techniczny maszynowy, Wydawnictwo Naukowe PWN, Warszawa 2019.

3. Jaskulski A., AutoCAD 2021PL/EN/LT+: metodyka efektywnego projektowania parametrycznego i nieparametrycznego 2D i 3D, Helion, Gliwice, 2020.

4. Pikoń A., AutoCAD 2020 PL: pierwsze kroki, Helion, Gliwice, 2019.

5. Zakres aktualnych aktów normatywnych z zakresu rysunku technicznego.

Additional

1. Stasiak F., AutoCA ® LT 2018 w projektowaniu mechaniki; ExpertBooks, Aleksandrów Łódzki, 2017.

2. Kossakowski P., Modelowanie żelbetowych elementów konstrukcyjnych w programie Autodesk Autocad Structural etailing 2015, Wydawnictwo Politechniki Świętokrzyskiej, Kielce, 2017.

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

4. Agaciński P., Grafika inżynierska, Wydawnictwo Politechniki Poznańskiej, Poznań, 2014.

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Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	18	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)[1]	32	1,0

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[1] delete or add other activities as appropriate