



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Product design

Course

Field of study

Product Lifecycle Engineering

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

English

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

Tutorials

Projects/seminars

30

Other (e.g. online)

Number of credit points

4

Lecturers

Responsible for the course/lecturer:

Phd eng. Przemysław Zawadzki

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Wydział Inżynierii Mechanicznej

ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

The student has basic knowledge in the field of engineering graphics and information technologies, as well as in the field of designing technological processes.

Course objective

The aim of the course is to acquaint students with the essence of the process of engineering projecting as a comprehensive process of satisfying needs, combining the areas of technology, economics, environmental protection and psychology.

Course-related learning outcomes

Knowledge

1. Describes the stages of engineering design



2. Describes the methods used in the design process

Skills

1. Student develops and presents the concept of the project
2. Student is able to design a product using appropriate techniques and tools

Social competences

1. Student demonstrates creativity in solving the problems
2. Student independently develop knowledge in a selected design area
3. Student can work in a design team 3

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

In the field of project classes - report of the project

Programme content

Project classes:

- Recognition of needs and expectations - project requirements
- Problem analysis - methods of searching for solutions
- Development of a project concept
- Project team management
- Preparation of project documentation

Teaching methods

- acquisition methods - independent student's work, consultations, discussion

Bibliography

Basic

Karl T. Ulrich, Steven D. Eppinger, "Product Design and Development, 5th Edition", Product Design and Development, McGraw-Hill Education; 5th Edition (May 5, 2011), ISBN-10 : 0073404772

Additional

Carl Liu, "Innovative Product Design Practice: Carl Liu Design Book", CYPI Press. (January 1, 2007), ISBN-10 : 0955605709



Pohl Klaus, "Requirements Engineering Fundamentals: A Study Guide for the Certified Professional for Requirements Engineering Exam - Foundation Level - IREB compliant", Rocky Nook; 2nd Edition (April 30, 2015), ISBN-10 : 193753877X

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,0
Classes requiring direct contact with the teacher	50	2,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam) ¹	50	2,0

¹ delete or add other activities as appropriate