



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Sensing customer expectations

Course

Field of study

Product Lifecycle Engineering

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/1

Profile of study

general academic

Course offered in

English

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

Tutorials

Projects/seminars

15

Other (e.g. online)

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr hab. inż. Beata Starzyńska

Responsible for the course/lecturer:

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Prerequisites

Knowledge of business management fundamentals (including marketing basics), the concept of quality management and basic knowledge of managerial techniques.

Course objective

The aim of the course is to learn by students how to recognize the needs and expectations of customers and how to translate (transform) them into the characteristics of the product idea, taking into account the "design thinking" approach.

Course-related learning outcomes

Knowledge

The student has knowledge of methods of testing the needs and expectations of customers (selected



aspects of marketing research), methods of design for quality and methods of innovative product design based on a deep understanding of the problems and expectations of customers.

Skills

The student is able to choose and put into practice methods of researching customer needs, methods of transforming customer needs into product characteristics in conjunction with methods of creating innovative solutions.

Social competences

The student understands the need for thorough understanding of customer needs in the context of the entire PLC.

The student is aware of the role and importance of the quality category in engineering activities.

The student actively participates in pro-quality, innovative and team activities.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: based on final test (once).

Design part: based on the result of the work (developing the project according to the stages of "design thinking").

Programme content

Lecture part:

The essence and the need to understand the client - his needs, expectations and requirements in the context of product quality categories, achievements of social and economic sciences, and in normative terms (here: the Kano model); product idea (concept) as a compromise between the customer and the producer. Marketing methods of researching clients' needs and expectations. Design methods for quality - translation (transformation) of needs and expectations for product characteristics (QFD, VoC, requirements matrix, Critical to Quality Product Features, Kansei, other). Method of innovative design thinking products. Methods and tools for measuring customer satisfaction as a source of information for a new PLC. The "design thinking" methodology: 1. "empathy"; 2. defining the problem; 3. generating ideas; 4. prototyping; 5. testing

Project part:

1. Division into project groups and clarifying the subject of the project.
2. Work on the project (at the University, remotely, in the field).
3. Presentation of work progress.
4. Presentation and "defense" of the project.

Teaching methods



Lecture: a form of conventional lectures combined with active discussion of students.

Project: work on progress in the implementation of project tasks with usage of "design thinking" methodology, presentation and discussion on the completed project.

Bibliography

Basic

1. Kelley T., Kelley D., Creative Confidence, Harper Collins Publishers 2015

Additional

1. Training materials.

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 workshops, preparation for tests/exam, project preparation) ¹	20	1,0

¹ delete or add other activities as appropriate