



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Industrial project for product manager

Course

Field of study

Product Lifecycle Engineering

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

english

Requirements

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

30

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

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Faculty of Mechanical Engineering

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Responsible for the course/lecturer:

Prerequisites

Student has basic knowledge of tools and methods for improving production processes



Course objective

To familiarize students with the methods and tools of modern management concepts in practice through the implementation of the project based on production system data.

Course-related learning outcomes

Knowledge

1. The student will have a basic knowledge of production systems and production management concepts.
2. Student will learn the practical application of methods and tools used in the concepts of Theory of Constraints, Lean Manufacturing and Six Sigma.
3. The student will learn the tools to increase flexibility and ensure timely implementation of production.

Skills

1. Student will be able to identify the constraints of production system.
2. Student will be able to develop and carry out a project improving production processes.
3. Student will be able to use tools and techniques of production management concepts in practice.

Social competences

1. Student understands the importance of production organization for the functioning of the enterprise [K_K02]
2. Student is able to independently develop knowledge in the subject [K_K01, K_K06]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Evaluation of the course based on the presentation of the project.

Programme content

The industrial project allows students to implement a project based on real production data and preceded by a benchmarking visit to the enterprise where the project will be implemented. The aim of the project will be to redesign the production system in a way that allows the production of a new product. The project will allow the use of theoretical solutions in practice, independent expansion of knowledge and work in a real production system.

Teaching methods

presentation, company visits, projects

Bibliography



Basic

1. Rother M., Learning to See: Value Stream Mapping to Add Value and Eliminate Muda, Productivity Press, 1999.
2. Liker J., The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer, McGraw-Hill Education, 2004
3. Goldratt E., The Goal: A Process of Ongoing Improvement, North River Press, 1992.
4. Geirge M., Maxey J., Rowlands D., The Lean Six SIGMA Pocket Toolbook: A Quick Reference Guide to Nearly 100 Tools for Improving Quality and Speed, McGraw-Hill Companies, 2004

Additional

1. Gitlow H., Melnyck R., Levine D., A Guide to Six Sigma and Process Improvement for Practitioners and Students: Foundations, DMAIC, Tools, Cases, and Certification, Pearson FT Press, 2015
2. Leach L., Lean Project Management: Eight Principles For Success, BookSurge Publishing, 2006

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 laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	20	1,0

¹ delete or add other activities as appropriate

