



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Interim Project

### Course

Field of study

Management and Production Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

part-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

Polish

Requirements

elective

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

20

### Number of credit points

5

### Lecturers

Responsible for the course/lecturer:

Justyna Trojanowska, PhD. Eng.

Responsible for the course/lecturer:

email: justyna.trojanowska@put.poznan.pl

ph. +61 665 5991

Faculty of Mechanical Engineering

Piotrowo Street 3, 60-965 Poznan

### Prerequisites

Student knows basic manufacturing techniques and has knowledge in the field of production management. Student is able to work in a team, logically associate facts, use information obtained from various sources of knowledge, and understand the need for learning.

### Course objective

To learn how to design a production system, to carry out technical and financial analysis of its operation, and to demonstrate the relationships between individual departments in a production company.

### Course-related learning outcomes

Knowledge

Student will be able to justify actions taken at various stages of project implementation.



Student will know the characteristics and elements of a production system.

Student will know the methods of production flow control in different approaches to the organization of production systems.

Student will know the basic tools for preparing construction and technological documentation..

#### Skills

Student will know how to develop a product's construction assumptions and draw up construction documentation.

Student will know how to design technological processes.

Student will know how to develop a production system design and determine the necessary production resources.

Student will know how to carry out a general marketing analysis.

#### Social competences

Student will understand the impact of decisions on the final result of the project and will be able to prioritize the tasks performed.

Student will work in a team.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Credit based on a report, multimedia presentation and discussion.

#### Programme content

Interim project is of a cross-sectional nature, combining the knowledge and skills of Students acquired in the current course of education.

The student prepares a project focused on one of the areas:

- manufacturing processes
- organization and production control
- process supervision and control
- IT systems in production

Depending on the work area, a project may include the following:

- purpose and scope of the project,
- company profile and scope of activity
- technical description of the product



- description of the manufacturing processes
- description of the organization of the production process
- description of the activity related to the supervision and control of the process
- description of the functioning of the IT system
- selected analyzes, e.g. economic, marketing, legal, environmental, SWOT.

### Teaching methods

Project: work in group, discussion, solving practical problems

### Bibliography

#### Basic

1. Organizacja i sterowanie, Marek Brzeziński, AW Placet, Warszawa, 2002
2. Zarządzanie produkcją. Produkt, technologia, organizacja, Edward Pająk, PWN, Warszawa, 2006
3. Ogranizacja systemów produkcyjnych, Lewandowski Jerzy, Skołod Bożena, Plinta Dariusz, PWE, Warszawa 2014
4. Zarządzanie i inżynieria jakości, Adam Hamrol, Wydawnictwo Naukowe PWM, 2022
5. Techniki komputerowe CAx w inżynierii produkcji, E. Chlebus, WNT, Warszawa, 2000
6. Projektowanie procesów technologicznych typowych części maszyn. Feld M., WNT, Warszawa 2000
7. Sterowanie przepływem produkcji. Singer Zb.; Wyd. Politechniki Poznańskiej, Poznań 1998

#### Additional

1. Inżynieria zarządzania, Ireneusz Durlik, AW Placet, Warszawa, 1993
2. Wprowadzenie do CAD. Podstawy komputerowo wspomaganego projektowania, Sydor M., PWN, 2019
3. Zaawansowane technologie współczesnych systemów produkcyjnych, Pająk E., Wyd. Politechniki Poznańskiej, Poznań, 2000 r.
4. Zarządzanie operacyjne. Waters J., Wydawnictwo Naukowe PWN Warszawa 2009
5. Tworzywa sztuczne w praktyce; Haponiuk J. T.; Wyd. Verlag Dashofer, Warszawa 2008



### Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	25	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	100	4,0

<sup>1</sup> delete or add other activities as appropriate