



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Specialization project [N2ZiIP2-STPR>PSP]

### Course

Field of study

Management and Production Engineering

Year/Semester

2/3

Area of study (specialization)

Production control

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

part-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

32

### Number of credit points

5,00

### Coordinators

### Lecturers

### Prerequisites

The student has basic knowledge of production management

### Course objective

Learning, understanding and acquiring the ability to apply in practice the principles and tools for supervising and maintaining technical resources in the implementation of production processes.

### Course-related learning outcomes

Knowledge:

The student has structured, theoretically based, detailed knowledge related to the organization of production processes

The student has extended knowledge of designing production systems

The student has theoretically based, detailed knowledge of enterprise management and production processes

The student has structured, theoretically based knowledge of trends in improving the organization of control and supervision of production processes

Skills:

The student is able to organize production taking into account customer demand and production

resources

The student is able to plan and carry out design work related to the organization of the production system.

The student is able to develop forecasts regarding the effectiveness and efficiency of production processes

The student is able to notice and identify problems occurring in systems and production processes, and select and use methods and tools appropriate to solve them.

Social competences:

The student understands the need for continuous learning; can inspire and organize the learning process of team members.

The student is able to think and act in a creative and entrepreneurial way.

The student is aware of the effects of engineering activities in both technical and non-technical areas.

The student is aware of the consequences of decisions made and responsibility for decisions made.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge and skills acquired during project classes will be verified based on the presentation of the completed project during the last class of the semester.

### Programme content

Design of production systems. Solutions for production planning and control of material and information flow.

### Course topics

Group project in the field of management and production engineering. Project topics are selected individually and may cover specific issues in the following areas: product and manufacturing process design and development, technical preparation of production, planning, control and supervision of production. Topics may also include issues related to phenomena and changes occurring in manufacturing technologies, in the functioning of manufacturing enterprises and the business and social environment, in the context of production management tasks.

### Teaching methods

Project: solving practical problems, searching for sources, team work, discussion.

### Bibliography

Basic:

Lewandowski Jerzy, Skołod Bożena, Plinta Dariusz, Organizacja systemów produkcyjnych, PWE, Warszawa 2014r.

Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE, Warszawa 2011r

Andrzej Jardzioch, Krzysztof Kalinowski, Sławomir Kłos, Organizacja i planowanie produkcji, PWE 2023.

Mazurczak Jerzy, Projektowanie struktur systemów produkcyjnych, Politechnika Poznańska, Poznań, 2002.

Edward Pająk, Zarządzanie produkcją. Produkt, technologia, organizacja, PWN, Warszawa, 2006

Waters Donald, Zarządzanie operacyjne, PWN, 2019

Additional:

Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE, Warszawa 2011r

Senger Zbigniew, Sterowanie przepływem produkcji, Wydawnictwo Politechniki Poznańskiej, 1998r.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,00
Classes requiring direct contact with the teacher	32	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	93	3,50