



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Production and service management

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### Course

Field of study

Logistics

Area of study (specialization)

Year/Semester

3/5

Profile of study

Level of study

First-cycle studies

Form of study

full-time

Course offered in

polish

Requirements

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### Number of hours

Lecture

30

Laboratory classes

Tutorials

30

Projects/seminars

15

Other (e.g. online)

### Number of credit points

5

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### Lecturers

Responsible for the course/lecturer:

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Faculty of Management Engineering

ul. Jacka Rychlewskiego 2

60-965 Poznań

Responsible for the course/lecturer:



## Prerequisites

The student starting this subject should have a basic knowledge of machine technology as well as the basics of management and logistics. He should also have the skills to understand and apply the parametric description of the production process and system as well as the design of workstation organization, as well as understand and be prepared for production management, especially in the area of production organization design, and in the field of social competence should have the ability to work in a group.

## Course objective

To familiarize students with the basics of production and service management.

## Course-related learning outcomes

### Knowledge

knows the basic management issues specific to logistics and production management [P6S\_WG\_08]

knows the basic relations between the technical and economic sphere characteristic of logistics and production management [P6S\_WK\_01]

knows the general principles of creating and developing forms of individual entrepreneurship characteristic of logistics and services related to the sphere of logistics [P6S\_WK\_10]

### Skills

is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and based on them determine the needs of supplementing knowledge [P6S\_UU\_01]

### Social competences

is aware of the responsible fulfillment, correct identification and resolution of dilemmas related to the logistics profession [P6S\_KR\_01]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge gained in the lectures is verified by a 90-minute college in the last class or through tests (quizzes) by the Moodle platform. Passing threshold: 50% of points. Assessment issues are made available to students by e-mail using the university e-mail system.

Skills acquired during the classes are verified by a 90-minute test during the last class. The colloquium consists of tasks (open and calculated). Passing threshold: 50% of points.

Skills acquired during project classes are verified on the basis of project tasks (implemented in teams). Passing threshold: 50% of points.

## Programme content

Lecture: The essence of production and service management. Classification of processes in an enterprise, an organized process. Parameters and norms of production management, space modeling the manufacturing process, control planes. Product (product or service), product range, construction and production series, production program, production rate and tact. Product manufacturing cycle.



Production capacity, load balancing with production capacity. Production capacity management, scheduling, production flow analysis. Basics of production control and services. Product structure - Bill of material and resource structure - Bill of resources. Basics of congestion theory, congestion management in service processes. Resource scheduling in service processes.

Exercises: Production management parameters and norms. Product (product or service), product range, construction and production series, production program, production pace and cycle. Product manufacturing cycle. Production capacity, load balancing with production capacity. Production capacity management, scheduling, production flow analysis. Product structure - Bill of material and resource structure - Bill of resources. Resource scheduling in service processes.

Project: Product (product or service), production range, program, production pace and cycle. Product production cycle. Production inventory. Production capacity, load balancing with production capacity.

### Teaching methods

Lecture: informative lecture (conventional) - information transfer in a systematic way, supported by multimedia presentation, illustrated with examples and tasks, and case method (case study) - analysis of specific cases of illustrative (illustrative) or problem (identifying problems) character.

Exercises: exercise method (subject exercises) - in the form of auditorium exercises, the application of acquired knowledge in practice can take a different nature: solving cognitive tasks or training psychomotor skills, transforming conscious activity into a habit through repetition.

Project: project method - individual or team implementation of a large, multi-stage cognitive or practical task, which results in the creation of a work.

### Bibliography

#### Basic

- Pajak E., Klimkiewicz M., Kosieradzka A., Zarządzanie produkcją i usługami, PWE, Warszawa 2014.  
Brzeziński M. (red.), Organizacja i sterowanie produkcją, AW Placet, Warszawa, 2002.  
Mazurczak J., Projektowanie struktur systemów produkcyjnych, WPP, Poznań, 2001.  
Boszko J., Struktura organizacyjna przedsiębiorstwa i drogi jej optymalizacji, WNT, Warszawa 1973.

#### Additional

- Muhlemann A., Oakland J., Lockyer K., Zarządzanie. Produkcja i usługi, PWN, Warszawa, 2001.  
Pajak E., Zarządzania produkcją, Wydawnictwo Naukowe PWN, Warszawa 2017.  
Wróblewski K., Podstawy sterowania przepływem produkcji, WNT, Warszawa 1993.  
Senger Z., Sterowanie przepływem produkcji, WPP, Poznań, 1998.  
Ragin-Skorecka K., Grzelczak A., Motała D., Podstawy zarządzania nie tylko dla logistyków, Wydawnictwo WSB, Poznań 2017.



### Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	75	3,0
Student's own work (literature studies, preparation for tutorials and design classes, preparation for tests, making a project) <sup>1</sup>	50	2,0

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