COURSE DESCRIPTION CARD - SYLLABUS

Course name
Production management

Course

Field of study
Management Engineering

Year/Semester
3/5

Area of study (specialization)

Profile of study
general academic

Level of study
First-cycle studies

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
10

Laboratory classes

Other (e.g. online)

Tutorials
10

Projects/seminars
10

Number of credit points

5

Lecturers

Responsible for the course/lecturer:
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Responsible for the course/lecturer:

Prerequisites

The student starting this subject should have a basic knowledge of machine technology and the basics of management and organization of work stations. 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 management.

Course-related learning outcomes

Knowledge

The student discusses the classification of processes in an enterprise, including the organized process, and analyzes parameters and standards of production management [P6S_WG_13].

The student describes production management processes, including the range of production, program, production pace and beat, as well as the production cycle of product execution [P6S_WG_16].

The student analyzes the functions of production inventory and its impact on production capacities and balancing loads with production capacity [P6S_WG_17].

The student characterizes the processes of managing production capacity, including scheduling and analysis of production flow [P6S_WG_18].

Skills

The student applies methods of analysis and evaluation of technological processes in production, including management of production and organization of production systems [P6S_UW_13].

The student designs and analyzes production systems, considering technological and organizational aspects of production [P6S_UW_15].

The student creates schedules and production plans, taking into account various technical and organizational aspects [P6S_UW_16].

Social competences

The student considers non-technical aspects of engineering activities, including the impact of production management on the environment and society [P6S_KR_01].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge acquired during the lectures is verified by the college at the last class and / or through tests (quizzes) in individual classes (via the Moodle platform). Passing threshold: 50% of points.

The skills acquired during the classes are verified by the test during the last classes and by the activity during the classes. The test consists of tasks (open and computational). Passing threshold: 50% of points.

The skills acquired during design classes are verified on the basis of the progress in the implementation of project tasks (implemented as a team) and the defense of the project. Passing threshold: 50% of points.

Programme content

Lecture: The essence of production 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), basics of technical preparation of production, range of production, program, pace and cycle of production. Product production cycle. Production stocks and their functions. Production capacity, load balancing with production capacity. Production capacity management, scheduling, production flow analysis. Basics of production control.

Exercises: Production management parameters and norms. Produkct (product or service), production range, program, production pace and cycle. Product production cycle. Production inventory. Production capacity, load balancing with production capacity. Production capacity management, scheduling, production flow analysis.

Project: Produkct (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

1. Pająk E., Zarządzanie produkcją, Wydawnictwo Naukowe PWN, Warszawa, 2021.

2. Pająk E., Klimkiewicz M., Kosieradzka A., Zarządzanie produkcją i usługami, PWE, Warszawa 2014.

3. Brzeziński M. (red.), Organizacja i sterowanie produkcją, AW Placet, Warszawa, 2002.

4. Kulińska E., Busławski A., Zarządzanie procesem produkcji, Difin, Warszawa, 2019.

Additional

1. Muhlemann A., Oakland J., Lockyer K., Zarządzanie. Produkcja i usługi, PWN , Warszawa, 2001.

2. Ragin-Skorecka K., Grzelczak A., Motała D., Podstawy zarządzania nie tylko dla logistyków, Wydawnictwo WSB, Poznań 2017.

3. Mazurczak J., Projektowanie struktur systemów produkcyjnych, WPP, Poznań, 2001.

4. Boszko J., Struktura organizacyjna przedsiębiorstwa i drogi jej optymalizacji, WNT, Warszawa 1973.

5. Grzelczak A., Norma czasu a zarządzanie produkcją w aspekcie pracy wielostanowiskowej [w:] Knosala R. (red.), Innowacje w zarządzaniu i inżynierii produkcji, tom 1, Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole, 2018.

6. Pająk E., Zarządzania produkcją, Wydawnictwo Naukowe PWN, Warszawa 2017.

7. Wróblewski K., Podstawy sterowania przepływem produkcji, WNT, Warszawa 1993.

8. Senger Z., Sterowanie przepływem produkcji, WPP, Poznań, 1998.

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for tutorials and projects, preparation for tests, making a project) [1]	95	4,0

[1] delete or add other activities as appropriate