COURSE DESCRIPTION CARD - SYLLABUS

Course name
Production management [N1Log2>ZProd1]

Course

Field of study
Logistics

Year/Semester
3/5

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
16

Laboratory classes
8

Other (e.g. online)
0

Tutorials
18

Projects/seminars
0

Number of credit points

5,00

Coordinators

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Lecturers

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:
1. Student knows basic issues in the field of production management [P6S_WG_08]
2. Student knows the basic relations between the technical and economic spheres characteristic of production management [P6S_WK_01]
3. Student knows the basic phenomena and contemporary trends in production management and its connections with logistics [P6S_WK_05]

4. Student knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of designing systems and production processes in the context of logistics [P6S_WK_07]

Skills:
1. Student is able to notice systemic and non-technical, as well as socio-technical, organizational and economic aspects in engineering tasks [P6S_UW_04]
2. Student is able to design an object, system or production process using appropriate methods and techniques [P6S_UW_07]
3. Student is able to identify and formulate design (engineering) tasks of a practical nature, characteristic of production management [P6S_UO_01]
4. Student is able to select appropriate tools and methods for solving a problem within the scope of production management, as well as use them effectively [P6S_UO_02]

Social competences:
1. Student is able to plan and manage in an entrepreneurial manner [P6S_KO_01]
2. Student is aware of the responsible filling, correct identification and resolution of dilemmas related to the profession of logistics [P6S_KR_01]
3. Student is aware of cooperation and group work on solving problems within the scope of logistics and production management [P6S_KR_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: The knowledge acquired during the lectures is verified by the college at the last class and / or through tests (quizzes) at individual classes (via the Moodle platform). Passing threshold: 50% of points.
Classes: The skills acquired during the classes are verified by the test during the last class and activity during the classes. The test consists of tasks (open and computational). Passing threshold: 50% of points.
Laboratory: The skills acquired during the laboratory classes are verified on the basis of the cognitive-practical assessment of the project using simulation methods, its defense or written answer, as well as the student's activity. Passing threshold: 50% of points.

Programme content

Lecture: The essence of production management. Basic concepts for production management. Production management parameters and norms. Modeling space of the production process, control planes. Product (product or service), simple and complex product, production range. Series and production batch. Production program. Time Fund. Production pace and tact. Production cycle of a simple and complex product. Production capacity, load balancing with production capacity. Managing production capacity, scheduling, production flow analysis.
Classes: Production management parameters and norms. Product, production range. Product structure, product specification. Series and production batch. Production program. Time Fund. Production pace and tact. Production cycle of a simple and complex product. Balancing production possibilities.
Laboratory: Analysis of the product range, structure and specifications of finished products. Technological cards and executive (workplace) instructions. Cyclograms. Analysis of production processes. Analysis of the possibility of implementing improvements in production processes (Lean Management). Production process simulations. Technological calculations (pace, tact, OEE indicator, etc.).

Course topics

The essence of production management. Production system. Production process and its parameters.

Teaching methods

Lecture: The essence of production management. Classification of processes in the enterprise, organized process. Parameters and standards of production management, modeling space of the manufacturing process, control planes. Product (product or service), basics of technical preparation of production, production range, program, pace and tact of production. Product production cycle. Production inventories and their functions. Production capabilities, balancing loads with production capacity. Production capacity management, scheduling, production flow analysis.

Exercises: Product (product), production range, program, production pace and tact. Product production cycle. Production stocks. Production capabilities, balancing loads with production capacity. Production capacity management, scheduling, production flow analysis.
Project: Product (product), production range, program, production pace and tact. Product production cycle. Production stocks. Production capabilities, balancing loads with production capacity.

Bibliography

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

Additional:
1. Muhlemann A., Oakland J., Lockyer K., Zarządzanie. Produkcja i usługi, PWN , Warszawa, 2001.
2. Pająk E., Zarządzania produkcją, Wydawnictwo Naukowe PWN, Warszawa 2017.
3. 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	5,00
Classes requiring direct contact with the teacher	42	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	83	3,00