



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Production and personnel management

Course

Field of study

Year/Semester

Materials engineering

1/1

Area of study (specialization)

Profile of study

general academic

Level of study

Course offered in

Second-cycle studies

polish

Form of study

Requirements

full-time

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

15

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

dr hab. inż. Eward Pająk, prof. PP

Wydział Inżynierii Mechanicznej

ul. Piotrowo 3, 60-965 Poznań

Prerequisites

General knowledge in the field of engineering and technical sciences and social sciences, mainly the disciplines of management and quality sciences.

Course objective

The aim of the course is to indicate the relationship between the technologies used in the area of specific engineering activities and the management of these technologies.

Course-related learning outcomes

Knowledge

Basic knowledge of production management. He knows the place of the company and its role in the national and global economy. He understands the role of the production system as the basis of each enterprise and the processes carried out in this system. He understands the importance of production preparation. He has knowledge of modern methods of production management, especially the concept of Lean Manufacturing - economical manufacturing. K2_W13



Skills

Student can define the basic and auxiliary processes implemented in a specific production system and characterize these processes. He can carry out activities related to the preparation of production, including technical (construction and technological) and organizational preparation, including activities related to the organization of workstations and the operation of staff. K2_U14

Social competences

Student can indicate the directions of development of processes used in production systems, he is aware of the threats posed by technologies and related processes. Can anticipate threats and counteract them (e.g. in the field of environmental protection). K2_K02

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Oral test - analysis and solution in groups of a simple study.

Programme content

1. Basic information (world economy, national economy, enterprise, production system, processes of production systems). Resources of the production system with particular emphasis on human resources.
2. Development of production systems - technical and social conditions. Industry 4.0.
3. Preparation of construction, technological and organizational production.
4. Production control: suction flow (kanban cards), pressing flow - development of schedules
5. The concept of lean manufacturing (Lean Manufacturing) - the essence of the concept, its application and the tools used (TPM, JiT, SMED).
6. Methodology for developing a VSM value stream map (current state) and a proposal to improve the value stream map.
7. Pass

Teaching methods

Lecture: multimedia presentation,

Bibliography

Basic

1. Pająk E.: Zarządzanie produkcją. Produkt, technologia, organizacja. PWN Warszawa 2021 r.

Additional

1. Praca zbiorowa - red. K.Szatkowski: Nowoczesne zarządzanie produkcją. Ujęcie procesowe. PWN Warszawa 2014 r.
2. Pająk E.: Zasady i metody oszczędnego wytwarzania. WYd. PWSZ Konin 2013 r



Breakdown of average student's workload

	Hours	ECTS
Total workload	25	2,0
Classes requiring direct contact with the teacher	15	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	10	1,0

¹ delete or add other activities as appropriate