



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Production flow control [N1ZiIP1>SPP]

Course

Field of study

Management and Production Engineering

Year/Semester

4/7

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

8

Projects/seminars

8

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

Student has a fundamental knowledge in the field of production planning and control. Student can logically associate facts and use information obtained from available sources of knowledge. Student understands the need to acquire new knowledge.

Course objective

An understanding of theoretical and practical issues in the field of production flow control.

Course-related learning outcomes

Knowledge:

Student knows production planning method.

Student knows methods of production scheduling.

Student knows functions of production flow control.

Student knows methods of production flow control in different aspects of organization of production systems.

Skills:

Student can define the material demand for a production program.
Student knows how to prepare a production schedule for the type and form of production.
Student can design flow of production using kanban system and theory of constraints.

Social competences:

Understands the importance of production organization for the functioning of a company.
Can independently develop knowledge on the subject.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Exercises: Verification of knowledge based on a colloquium consisting of 5 general questions (pass in the case of a correct answer to at least 3 questions) carried out at the end of the semester.

Projects: Knowledge and skills verified on the basis of partial reports.

Programme content

Definition of production flow control. Types and forms of production organization. Information in the production flow control system. Types of production plans.

Control of production resources. Scheduling methods. Modern methods of production flow control.

Course topics

Exercises

Definition of production flow control. Types and forms of production organization. Information in the production flow control system. Types of production plans.

Control of production resources (production capacity, economy of scale, orders and production capacity parameters). Operational scheduling; methods of scheduling. Material flow control. Modern methods of production flow control (kanban, just in time, lean manufacturing).

Projects

Determination of basic parameters characterizing flow of production. Calculation of inventory in the manufacturing process. Methods of production scheduling. Control of production flow by using pull system and drum-buffer-rope tool.

Teaching methods

Exercises: multimedia presentation enriched with video materials, tasks, case study.

Projects: practical exercises, simulation, discussion.

Bibliography

Basic:

1. Organizacja i sterowanie, Marek Brzeziński, AW Placet, Warszawa, 2002
2. Zarządzanie produkcją. Produkt, technologia, organizacja, Edward Pająk, PWN, Warszawa, 2006

Additional:

1. Inżynieria zarządzania, Ireneusz Durlik, AW Placet, Warszawa, 1993
2. Cel I: Doskonałość w produkcji, Eliyahu M. Goldratt, MINT Books, Warszawa 2017

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	20	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00