



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer aided production planning and control systems [S2Log2-SPL>KWPISP]

Course

Field of study

Logistics

Year/Semester

1/2

Area of study (specialization)

Production-logistics Systems

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

Number of hours

Lecture

30

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

30

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

The student knows the basic concepts related to the design, implementation and operation of production planning and control systems in enterprises of the machine-building industry. He should also be able to obtain information from specified sources and be willing to cooperate as part of a team.

Course objective

Mastering the student's knowledge, skills and social competences related to the essence, scope of use, use and implementation of computer-aided planning and production control systems.

Course-related learning outcomes

Knowledge:

1. Student knows the dependencies related to the design, implementation and operation of production planning and control systems [P7S_WG_01]
2. Student knows issues in the field of production engineering and its connections related to the design, implementation and operation of production planning and control systems [P7S_WG_02]
3. Student knows extended concepts related to the design, implementation and operation of production planning and control systems [P7S_WG_05]

4. Student knows detailed methods, tools and techniques related to the design, implementation and operation of production planning and control systems [P7S_WK_01]

Skills:

1. Student is able to collect, based on the literature on the subject and other sources and present in an orderly manner, information regarding a problem falling within the framework of the design, implementation and operation of production planning and control systems [P7S_UW_01]

2. Student communicate using appropriately selected resources in a professional environment and in other environments as part of logistics and its specific issues as well as supply chain management [P7S_UW_02]

3. Student is able to design, using appropriate methods and techniques, an object, system or logistics process and the process associated with it, along with determining the path of its implementation and potential threats or limitations related to the design, implementation and operation of production planning and control systems [P7S_UW_05]

4. Student is able to design, using appropriately selected means, an experiment, analysis process or scientific research solving a problem within the framework of the design, implementation and operation of production planning and control systems [P7S_UK_01]

5. Student is able to identify changes in requirements, standards, regulations, technical progress and labor market reality, and on their basis determine the needs to supplement own and other knowledge related to the design, implementation and operation of production planning and control systems [P7S_UU_01]

Social competences:

1. Student notices cause-and-effect relationships in the implementation of set goals and gradates the importance of alternative or competing tasks related to the design, implementation and operation of production planning and control systems [P7S_KK_01]

2. Student responsibility for own work and readiness to comply with the rules of working in a team and taking responsibility for the tasks carried out jointly [P7S_KR_01]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: assessment on the basis of a written test (exam); pass mark: 50% of points.

Project: assessment based on a team-based project; pass mark: 50% of points.

Programme content

The ERP standard and its basic components. The basic procedures implemented by ERP systems

Course topics

Production and sales planning, master planning, development master schedule, material requirements (distribution) planning, planning of potential requirements based on ERP systems

Project: Functioning of an ERP class system on the example of the Axapta system.

Teaching methods

Lecture: conversational lecture, informative lecture, supported by a multimedia presentation, illustrated with examples given on the board.

Project: project method, case study supported by a multimedia presentation, presentation illustrated with examples given on the board and carrying out the tasks given by the teacher.

Bibliography

Basic:

1. Fertsch M., Metoda planowania zapotrzebowania materiałowego w planowaniu produkcji i sterowania jej przebiegiem, Wydawnictwo Politechniki Poznańskiej, Poznań, 2013.

2. Fertsch M., Fertsch M., Moduły systemów informatycznych zarządzania, Wydawnictwo Politechniki Poznańskiej, Poznań, 2011.

3. Senger Z., Sterowanie przepływem produkcji, Wydawnictwo Politechniki Poznańskiej, Poznań, 1998.

4. Fertsch M., Podstawy zarządzania przepływem materiałów w przykładach, Biblioteka Logistyka, Wydawnictwo ILiM, Poznań, 2003.

Additional:

1. Brzeziński M., Organizacja i sterowanie produkcją. Projektowanie systemów produkcyjnych i procesów sterowania produkcją, Agencja Wydawnicza Placet, Warszawa, 2002.

2. Hadaś Ł., Fertsch M., Cyplik P., Planowanie i sterowanie produkcją, Wydawnictwo Politechniki Poznańskiej, Poznań, 2012.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	40	1,50