POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Computer aided production planning and control systems [S2Log2-SPL>KWPiSP]

Course

Field of study	Year/Semester
Logistics	1/2
Area of study (specialization)	Profile of study
Production-logistics Systems	general academic
Level of study	Course offered in
second-cycle	polish
Form of study	Requirements
full-time	elective

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
30	0	0
Tutorials	Projects/seminars	
0	30	

Number of credit points

4,00

Coordinators	Lecturers
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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

Lecture: The ERP standard and its basic components. The basic procedures implemented by ERP systems are discussed in turn: production and sales planning, master planning, master schedule preparation, material (distribution) material requirements planning, capacity requirements planning.
Project: the functioning of the ERP 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