



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer aided production planning and control systems

Course

Field of study

Year/Semester

Logistics

1/1

Area of study (specialization)

Profile of study

Corporate Logistics

general academic

Level of study

Course offered in

Second-cycle studies

Polish

Form of study

Requirements

part-time

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

16

Tutorials

Projects/seminars

16

Number of credit points

5

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

Prof. Marek Fertsch, Ph.D., D.Sc., Eng.,

Mail to: marek.fertsch@put.poznan.pl

Phone: 48 61 665 3416

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

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



- knows the dependencies related to the design, implementation and operation of production planning and control systems [P7S_WG_01]
- 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]
- knows extended concepts related to the design, implementation and operation of production planning and control systems [P7S_WG_05]
- knows detailed methods, tools and techniques related to the design, implementation and operation of production planning and control systems [P7S_WK_01]

Skills

- 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]
- 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]
- 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]
- 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]
- 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

- 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]
- 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:

assessment based on a team-developed project,

grade based on written credit (exam)



Programme content

The lecture begins by discussing the ERP standard and its basic components. Then, 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.

During laboratory classes, students learn about the functioning of the ERP system on the example of the Axapta system

Teaching methods

1. Lecture: multimedia presentation, illustrated with examples on the board. 2. Projects: multimedia presentation illustrated with examples given on the board and performance of 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
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	125	5,0
Classes requiring direct contact with the teacher	32	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	93	3,5

¹ delete or add other activities as appropriate