POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Computing management systems [N1ZiIP1>ISZ]

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
compulsory

Number of hours

Lecture
8

Laboratory classes
8

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

2,00

Coordinators

dr hab. inż. Ewa Dostatni prof. PP
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Lecturers

Prerequisites

The basic knowledge of computer science, database systems and technology processes. Logical thinking, the used of information obtained from libraries and the Internet, ability of using computer, knowledge how to distinguish strategic, tactical and operational decisions. Understanding of learning needs and acquiring new knowledge.

Course objective

Acknowledge of theoretical and practical subjects related to the construction and use of integrated management systems in the enterprise.

Course-related learning outcomes

Knowledge:
Lists and characterizes basic elements of production organization process, describes the structure and core functionality of integrated management systems (IMS). Identifies processes supported by IMS and defines al data necessary for it . Characterizes management standards used in IMS .

Skills:

Can acquire and analyze information obtained from integrated management systems (IMS). Is able to define and model a production process in an IMS with regard to the quality of materials and products. Knows how to manage production process using computer tools.

Social competences:
Can work in a group. Is aware of the role of IT in an enterprise. Can act in an entrepreneurial way.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Intermediate rating:
Laboratory: on the basis of an assessment of the progress of laboratory tasks
Lecture : based on answers to questions about the material discussed in previous lectures.
Summary rating:
Laboratory: credit based on tasks performer during laboratory (credit on computer workstation) and the implementation of the report of the exercises. The student must obtain a positive assessment of the executed report.
Lecture: credit based on test consisting of open questions in a scale 0-1. Test is passed after obtaining at least 55% of all points. Laboratory completion is needed to begin final test papers. Discussion of the test results. Test is carried out at the end of the semester.

Programme content

Basics of management theory.
Integrated IT management systems.
MRP, MRP II, ERP.

Course topics

Lecture:
Functions and tasks of integrated management systems (IMS).
Theory basics of management and organization of work.
Elements of production organization.
The production cycle and principles of work organization.
Organization cycles.
International standards of management in enterprises, MRP /ERP approach, MRP/ERP software and systems, IT architectures and technologies.
The modular construction of IMS.
Economical and legal aspects of management in enterprises.
Laboratory:
Examine the integrated management systems (IMS)
Feeding computer system with basic data (manufactured products, company structure, production factors, human resources, processes, suppliers, customers, etc.)
Providing client orders to the system.
Running the MRP procedure and calculation of material requirements and production order.
Conduct of materials ordering.
Implementation of the production flow in a computer system with emphasis on quality.
Summary execution and development of conclusions.

Teaching methods

Lecture: multimedia presentation illustrated with examples given on a board, problem solving.
Laboratory: solving tasks at the computer. Practical exercises and discussion.

Bibliography

Basic:
1. Adamczewski P., Informatyczne wspomaganie łańcucha logistycznego, Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2000
2. Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE warszawa, 2011
3. Chlebus E., Techniki komputerowe CAx w inżynierii produkcji, WNT, Warszawa 2000

4. Durlik I., Inżynieria zarządzania, Tom 1 i 2, Wydawnictwo Placet, 1996
5. Pająk E., Zarządzanie produkcją. Produkt, technologia, organizacja, PWN, Warszawa, 2006

Additional:
1. Rojek I., Zintegrowany system informatyczny IFS Applications, Wydawnictwo Uniwersytetu Kazimierza Wielkiego, Bydgoszcz 2007

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