



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Information systems [S2IMat1>Sysinfor]

### Course

Field of study

Materials Engineering

Year/Semester

1/1

Area of study (specialization)

–

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

15

Laboratory classes

15

Other (e.g. online)

0

Tutorials

0

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

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### Lecturers

### Prerequisites

Basic knowledge of computer science, database systems, technological processes. Skills: logical thinking, using information obtained from the library and the Internet, can use a computer, can distinguish between strategic, tactical and operational decisions. Understanding the need to learn and acquire new knowledge

### Course objective

Getting to know the theoretical and practical issues related to the design and implementation of information systems in various areas of enterprises.

### Course-related learning outcomes

Knowledge:

selects solutions for the defined area of organizational - [k\_w12, k\_w13]

lists and characterized by systems used in the enterprise in different areas - [k\_w12, k\_w13]

explains the basic principles of designing information systems - [k\_w12, k\_w13]

proposes the use of selected methods for implementation of information systems - [k\_w12, k\_w13]

Skills:

places the use of computer support to different areas of the company with particular emphasis on management - [k\_u07, k\_u14]

can propose the implementation of an information system for the division of that company - [k\_u07, k\_u14]

places your inventory management and demand planning material the use of information systems - [k\_u07, k\_u14]

Social competences:

able to work in a team - [k\_k03]

is aware of the role of it in business engineering - [k\_k07]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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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. Discussion of the test results. Test is carried out at the end of the semester.

### Programme content

The program covers issues related to IT systems used in manufacturing enterprises (system characteristics, their structure, classifications, etc.), as well as the basics of designing and implementing management IT systems.

### Course topics

Lecture:

1. Construction of IT systems used in the enterprise.
2. Classification of information systems.
3. Advisory systems.
4. IT management systems.
5. Modern integrated management information systems (ERP - Enterprise Resources Planning i ERP II).
6. PDM, DDM, EDM, CRM systems.
7. Fundamentals of designing information systems.
8. Implementation of IT systems in the enterprise.

Laboratories:

1. Familiarization with the structure of the Comarch ERP IT system.
2. Entering basic data into the system (manufactured products, company structure, means of production, human resources, technological processes, suppliers, customers, etc.)
3. Entering a customer order. Launching the MRP procedure and calculating material requirements and production orders. Carrying out the procedure of ordering materials
4. Execution and production order flow in the IT system
5. Developing a plan to implement the selected IT management system in the enterprise - report.

### 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. Januszewski A, Funkcjonalność informatycznych systemów zarządzania. Zintegrowane systemy transakcyjne tom.1, PWN, Warszawa, 2008
2. Komputerowe wspomaganie zarządzania przedsiębiorstwem, Knosala R., PWE, Warszawa, 2007
3. Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE warszawa, 2014

Additional

1. Techniki komputerowe w przedsiębiorstwie, Z. Weiss, Wydawnictwo Politechniki Poznańskiej, Poznań, 1998
2. Chlebus E., Techniki komputerowe CAx w inżynierii produkcji, WNT, Warszawa 2000

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	30	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	20	0,50