

Enterprise resource planning - course description

General information	
Course name	Enterprise resource planning
Course ID	04.2-WM-BizEIP-ZarzZasobPrzeds.-Er
Faculty	Faculty of Engineering and Technical Sciences
Field of study	E-business
Education profile	practical
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2021/2022

Course information	
Semester	4
ECTS credits to win	5
Course type	obligatory
Teaching language	english
Author of syllabus	<ul style="list-style-type: none">dr hab. inż. Sławomir Kłos, prof. UZ

Classes forms					
The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	30	2	-	-	Exam
Laboratory	30	2	-	-	Credit with grade

Aim of the course

The aim of the course is to presents students advanced techniques of work and use of ERP class management information systems operating in large, medium and small enterprises on the base of SAP system. Advanced functions of integrated management systems will be presented. Students will learn about the methods of configuring integrated ERP management systems and preparing the enterprise for their implementation, etc. Skills related to process analysis for the implementation of ERP systems will be developed.

Prerequisites

Integrated management systems.

Scope

Process analysis of functional areas of an enterprise for the purposes of implementing integrated ERP systems. Product life cycle management. Implementation of ERP systems in manufacturing companies. The specificity of the implementation of ERP systems for production to the warehouse, commissioned and unit production - commissioned design. Registration of business data in a scalable ERP system, enterprise know-how database.

Automation of business processes and support of decision-making processes in functional areas: research and development, sales, production, logistics, quality control and maintenance. Industry solutions of ERP class systems (e.g. automotive industry, machine construction and engineering design, etc.).

Designing document flow in ERP systems. Work with ERP systems in the cloud and mobile solutions. Analysis of the effectiveness of the implementation of integrated management systems and post-implementation analysis. As part of the lectures and laboratories of the subject, students will learn the advanced functions of integrated ERP systems based on SAP ERP software. The following modules of the SAP system are included in the scope of the course:

- Sales & Distribution
- Materials Management
- Production Planning
- Plant Maintenance
- Quality Management
- Human Capital management
- Project Management
- Financial Accounting
- Controlling
- Enterprise Asset Management
- Warehouse Management

Teaching methods

Lecture - conventional lecture using a video projector.

Laboratory - practical classes in the computer laboratory.

Learning outcomes and methods of their verification

Outcome description	Outcome symbols	Methods of verification	The class form
Student has detailed knowledge of ERP information management systems		• an exam - oral, descriptive, test and other	• Lecture
Student has the preparation necessary to implement ERP systems		• carrying out laboratory reports	• Laboratory
Student is able to model business processes in ERP class systems.		• carrying out laboratory reports	• Laboratory
Student is able to properly set priorities for the implementation of a specific task		• carrying out laboratory reports	• Laboratory
Student understands the need to expand knowledge related to the implementation of integrated management systems		• carrying out laboratory reports	• Laboratory
Student understands the need to expand knowledge related to the implementation of integrated management systems		• carrying out laboratory reports	• Laboratory
The student has detailed knowledge about the practical applications of ERP systems		• an exam - oral, descriptive, test and other	• Lecture
The student has knowledge about how to integrate IT systems in business applications		• an exam - oral, descriptive, test and other	• Lecture
The student has knowledge in the field of enterprise management based on ERP systems		• an exam - oral, descriptive, test and other	• Lecture
The student is aware of the role of professional ethics in business and the media		• carrying out laboratory reports	• Laboratory

Assignment conditions

Lecture - written exam.

Project - the final grade is the weighted sum of the marks obtained for the implementation of individual elements of the project. Contribution of individual assessment elements: laboratory assessment - 50%, including quality assessment of entered product data - 25%, knowledge of the selected ERP software package - 25%.

Final grade = 50% of the final grade of the lecture + 50% of the final grade of the project.

Recommended reading

1. Auksztol, J., Balwierz, P., Chomuszko M., SAP. Zrozumieć system ERP, PWN 2011.
2. Banaszak, Z., Kłos, S., Mleczko, J., Zintegrowane systemy zarządzania, PWE, 2016.
3. Januszewski, A., Funkcjonalność informatycznych systemów zarządzania. T. 1. i T.2. PWN, 2011.
4. Kisielnicki, J., Pańkowska M., Sroka H., Zintegrowane systemy informatyczne, PWN, 2012.
5. SAP system documentation - online.

Further reading

1. Lech, P., Zintegrowane systemy zarządzania ERP/ERP II. Wykorzystanie w biznesie, wdrażanie, Warszawa, Difin, 2003.
2. Flasiński, M., Zarządzanie projektami informatycznymi, PWN, 2009.
3. Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania PWE, 2016

Notes

Modified by dr hab. inż. Sławomir Kłos, prof. UZ (last modification: 16-07-2021 09:36)