

# Integrated Management Systems - opis przedmiotu

| Informacje ogólne   |                                     |
|---------------------|-------------------------------------|
| Nazwa przedmiotu    | Integrated Management Systems       |
| Kod przedmiotu      | 06.9-WM-ER-ZiIP-21_18               |
| Wydział             | <a href="#">Wydział Mechaniczny</a> |
| Kierunek            | WM - oferta ERASMUS                 |
| Profil              | -                                   |
| Rodzaj studiów      | Program Erasmus                     |
| Semestr rozpoczęcia | semestr zimowy 2018/2019            |

| Informacje o przedmiocie        |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Semestr                         | 1                                                                                    |
| Liczba punktów ECTS do zdobycia | 3                                                                                    |
| Typ przedmiotu                  | obowiązkowy                                                                          |
| Język nauczania                 | angielski                                                                            |
| Sylabus opracował               | <ul style="list-style-type: none"><li>dr hab. inż. Sławomir Kłos, prof. UZ</li></ul> |

| Formy zajęć |                                            |                                           |                                               |                                              |                     |
|-------------|--------------------------------------------|-------------------------------------------|-----------------------------------------------|----------------------------------------------|---------------------|
| Forma zajęć | Liczba godzin w semestrze<br>(stacjonarne) | Liczba godzin w tygodniu<br>(stacjonarne) | Liczba godzin w semestrze<br>(niestacjonarne) | Liczba godzin w tygodniu<br>(niestacjonarne) | Forma zaliczenia    |
| Wykład      | 15                                         | 1                                         | -                                             | -                                            | Egzamin             |
| Projekt     | 15                                         | 1                                         | -                                             | -                                            | Zaliczenie na ocenę |

## Cel przedmiotu

The main effect of instruction is learning of the functionality of integrated management systems, learning of a process approach to management of manufacturing companies where such systems have been implemented.

## Wymagania wstępne

Production and Services Management.

## Zakres tematyczny

Development and classification of integrated management systems. Transactional systems and decision support systems. A complex system vs. integrated system. Module approach to the complex system. Assessment of ERP-class systems. Material Requirements Planning MRP and Manufacturing Resource Planning MRPII. MRP and MRP II specifications. Basic functions of the integrated enterprise management system. ERP-class systems, implementation of information systems. Management of an implementation project of an integrated management system. Package selection process. The methodology of implementation of the ERP system. Formation of an implementation team. Time-cost schedule for an IT system implementation. The pre-implementation analysis. Identification of critical areas in the company. The determination of the increase in the amount of data in time and the determination of assumptions for the IT equipment requirements. Preparing the IT infrastructure. The selection of equipment: servers, workstations, hardware and network infrastructure. Security of the IT system: anti-virus systems, data archiving systems and anti-surge systems. Logistics in ERP systems. Customer Relationship Management (CRM) systems. Management information system. Modelling business processes and workflows in an enterprise (Workflow Management). Systems of modelling of flows of business processes in an enterprise. Administration of integrated management systems. The administration of a database server, ideas for e-commerce applications, Business-to-Business (B2B) and Business-to-Customer (B2C). Review of existing solutions in the field of E-commerce. Online stores and online payments. Virtual organizations.

Within the project, the following topics are covered:

- The entry of structural and technological data in the field of technical preparation of production,
- preparation of offers and sales orders
- production scheduling
- preparation of supply orders

Issuing documents of material circulation and registration of production operations.

## Metody kształcenia

Conventional lecture. Project.

## Efekty uczenia się i metody weryfikacji osiągnięcia efektów uczenia się

| Opis efektu                                                                           | Symbole efektów | Metody weryfikacji                                        | Forma zajęć                                             |
|---------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------|---------------------------------------------------------|
| Student can choose the relevant modules and use the integrated IT management systems. |                 | <ul style="list-style-type: none"><li>kolokwium</li></ul> | <ul style="list-style-type: none"><li>Projekt</li></ul> |

| Opis efektu                                                                                                                                                                                                       | Symbole efektów | Metody weryfikacji                         | Forma zajęć |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------|-------------|
| The student is able to formulate and solve tasks related to production engineering and management, and to apply systematic approach taking also into account of economic, legal and social aspects.               |                 | • kolokwium                                | • Projekt   |
| The student is aware of the importance and understanding of the non-technical aspects and effects of engineering activities, including its impact on the environment, and their responsibility for own decisions. |                 | • kolokwium                                | • Projekt   |
| The student has ordered and well-grounded theoretical knowledge in the field of computer-aided company management.                                                                                                |                 | • egzamin - ustny, opisowy, testowy i inne | • Wykład    |
| The student has ordered and well-grounded theoretical knowledge in the field of integrated management systems.                                                                                                    |                 | • egzamin - ustny, opisowy, testowy i inne | • Wykład    |
| The student has ordered and well-grounded theoretical knowledge of decision support systems and knowledge management.                                                                                             |                 | • egzamin - ustny, opisowy, testowy i inne | • Wykład    |
| The student is able to think and act in a creative and enterprising way.                                                                                                                                          |                 | • kolokwium                                | • Projekt   |

## Warunki zaliczenia

Lecture credit is awarded after passing a written exam (K\_W09, K\_W11, K\_W,14). Project credit is awarded based on the assessment of the project presenting issues concerning data structures and models of business processes of an exemplary enterprise Credit for project classes is awarded based on the assessment of the project related to issues of data structures and business process models presented on a sample production enterprise and performed based on a selected ERP system (K\_U12, K\_U17, K\_K02, K\_K06).

## Literatura podstawowa

1. K. Ganesh, S. Mohapatra, S. P. Anbuudayasankar, P. Sivakumar, Enterprise Resource Planning, Fundamentals of Design and Implementation, Springer 2014
2. K. E. Kurbel, Enterprise Resource Planning and Supply Chain Management, Functions, Business Processes and Software for Manufacturing Companies, Springer 2012
3. Marianne Bradford, Modern ERP: Select, Implement, and Use Today's Advanced Business Systems, lulu.com, 2015

## Literatura uzupełniająca

S. Scott Phillips, Control Your ERP Destiny: Reduce Project Costs, Mitigate Risks, and Design Better Business Solutions, Street Smart ERP Publications, 2013

## Uwagi

Zmodyfikowane przez dr hab. inż. Sławomir Kłos, prof. UZ (ostatnia modyfikacja: 25-04-2018 12:50)

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