Information systems management - course description

General information

Course name	Information systems management
Course ID	11.9-WE-INFP-InfSysManag-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	Computer Science
Education profile	academic
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2019/2020

Course information

Semester	5
ECTS credits to win	5
Course type	obligatory
Teaching language	english
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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

- acquaint students with the scope of using information systems in business management,
- acquaint students with the basic concepts of management information systems,
- acquaint students with the scope of using E-Business and E-Commerce systems in the enterprise,
- shaping basic skills in the practical construction of systems supporting customer relationship management in the enterprise.

Prerequisites

Databases, Software engineering, Object-oriented programming.

Scope

Introduction: The scope of Management Information Systems. Classification of Management Information Systems. Transactional and analytical information systems. Analysis and design of information flows. The lifecycle of Management Information Systems. The evolution of a Management Information Systems in Poland and worldwide. Structure of Management Information Systems –case study.

Manufacturing Management Systems: Material flow in firm. Warehouse management. MRP, MRP II – methods and implementation. MRP and MRP II - software architectures and technologies. Data transmission from SCADA to Management Information Systems. Examples of MRP II systems - comparison and analysis of functions.

Information Systems In Logistic: Kanban. JIT - method and implementation. SCM - Supply chain management. Architecture of Logistic Information Systems (LIS). Examples of LIS - comparison and analysis of functions.

Financial Management Information Systems: Definition – Credit side, Debit side, capital assets, statement of financial position. The flow of financial information in firm. Structure of book of account – example of implementation.

Customer Relationship Management (CRM): CRM in firm, connections to other systems. CRM structure. CRM implementation.

E-Business and E-Commerce, basis: B2B, B2C, C2C. Digital marketplace. History of E-Business. Statistical Data - Internet in Poland, E-Commerce in Poland. Internet Sales in Poland and worldwide.

E-Business Models. E-Business Architecture (levels). The basic categories of business models: Brokerage, Advertising, Infomediary, Merchant, Manufacturer (Direct), Affiliate, Community, Subscription, Utility. E-business models by degree of functional integration and innovation. E-business models by degree of the power relationship (on the buyer or the seller side). Business and Information Architecture.

The Electronic Shops: Advantages and disadvantages. Traditional and Electronic process of selling. Statistical data – clients of electronic shop.

M-Business. M-Business, structure of application,

Phases of E-Business systems implementation: How to choose right solution. Techniques of implementation. Planning and monitoring of implementation processes. Outsourcing of software and hardware.

Internet payment methods: Macro, Mini and Micro payments. Credit card payments. E-Cash Smart Card and others. Classification of payments method for mobile systems. M-Payments. Security of payments over Internet.

Internet Marketing: Customer Relationship Management and Internet. How Internet Search Engines Work. SEO (Search engine optimization). Internet and advertising –

techniques, choosing, measurement of efficiency. Web Stats. Social networking services. Tools for measuring the effectiveness of marketing campaigns.

Teaching methods

Lecture, laboratory exercises.

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Can characterize in a general way particular groups of business management IT systems		• an exam - oral, descriptive, test and other	• Lecture
Can explain the differences between indicated electronic business models		• an exam - oral, descriptive, test and other	• Lecture
Is able to design and build a simple CRM system used to support contacts between the company and business partners		• an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills • carrying out laboratory reports	• Laboratory
Can prepare a selection and implementation plan management information system in an enterprise		• an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills • carrying out laboratory reports	• Laboratory
Can work and communicate in a team		• an observation and evaluation of activities during the classes	• Laboratory

Assignment conditions

Lecture – obtaining a positive grade from exam.

Laboratory – the passing condition is to obtain positive marks from all laboratory exercises to be planned during the semester.

Calculation of the final grade: lecture 50% + laboratory 50%

Recommended reading

1. Laudon K.C., Laudon J., *Essentials of Management Information Systems* (10th Edition), Prentice-Hall, Inc., 2012.
2. Laudon K.C., Laudon J.P.: *Management Information Systems: Managing the Digital Firm*, Prentice-Hall, Inc., 2007.
3. Dyché J.,: *The CRM Handbook: A Business Guide to Customer Relationship Management*, Addison-Wesley, 2002.
4. Kotler P.: *Marketing Management*, Prentice Hall; 2006.
5. Sheikh K.: *Manufacturing Resource Planning (MRP II) with Introduction to ERP, SCM, and CRM*, McGraw-Hill Professional, 2002.

Further reading

Notes

Modified by prof. dr hab. inż. Andrzej Obuchowicz (last modification: 27-10-2019 10:37)