

MODULE DESCRIPTION

Module code	Z-ZIP2-0452
Module name	Informatyczne Systemy Zarządzania Produkcją
Module name in English	Manufacturing Management Information Systems
Valid from academic year	2016/2017

A. MODULE PLACEMENT IN THE SYLLABUS

Field of study	Management and Production Engineering
Level of education	2nd degree <i>(1st degree / 2nd degree)</i>
Studies profile	General <i>(general / practical)</i>
Form and method of conducting classes	Full-time <i>(full-time / part-time)</i>
Specialisation	All
Unit conducting the module	Department of Applied Computer Science and Applied Mathematics
Module co-ordinator	Marcin Detka, PhD
Approved by:	

B. MODULE OVERVIEW

Type of subject/group of subjects	Basic <i>(basic / major / specialist subject / conjoint / other HES)</i>
Module status	Compulsory <i>(compulsory / non-compulsory)</i>
Language of conducting classes	English
Module placement in the syllabus - semester	1st semester
Subject realisation in the academic year	Summer semester <i>(winter semester/ summer)</i>
Initial requirements	No requirements <i>(module codes / module names)</i>
Examination	No <i>(yes / no)</i>
Number of ECTS credit points	2

Method of conducting classes	Lecture	Classes	Laboratory	Project	Other
Per semester	10		15		

C. TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Module target	The main aim of the module is practical utilization knowledge students gained at the undergraduate level (knowledge like: management of production, technological processes etc.), in the definition of discrete manufacturing in information system. The additional aim of the module is familiarize students with the selected computer production management system (for example: IFS APPLICATION or OpenErp/Odoo).
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Effect symbol	Teaching results	Teaching methods (l/lab/p/other)	Reference to subject effects	Reference to effects of a field of study
W_01	Knowledge on applying information technologies in the context of smooth functioning of the enterprise, including also issues of the production processes support.	l/lab	K_W04	T2A_W03 S2A_W06
W_02	Specialist knowledge regarding to selected issues on interdisciplinary area of management and production engineering, including information technology and finance.	l/lab	K_W12	T2A_W05 S2A_W06
U_01	Ability to assess the suitability of methods and tools for solving engineering tasks in the field of production engineering, and organizational and managerial type tasks, and also apply them in research topics.	l/lab	K_U12	T2A_U16 T2A_U18
U_02	Ability to efficiently apply specialist knowledge together with related methods and tools to analyse, evaluate and solve of business issues as well as management problems in fields of both information technology and technics.	l/lab	K_U13	S2A_U06 T2A_U10
K_01	Appreciates the importance of a continuous education process and acquiring specialized knowledge and skills, as the foundation of creative and entrepreneurial thinking.	l/lab	K_K01	T2A_K01 T2A_K06
K_02	Awareness of the significance and the understanding of linkage between the engineering activities and the business with taking into account development of the region and understanding responsibility for decisions.	l/lab	K_K02	T2A_K02 T2A_K04

Teaching contents:

1. Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module
1	Design of the process discrete manufacturing - preparation of data for the information system.	W_01
2	Characteristics and operation of the selected system manufacturing management (eg. IFS Application or OpenErp/Odoo).	W_01
3	The definition of product structure, enterprise structure and process in the manufacturing management computer system (eg. IFS Application or OpenErp/Odoo).	W_01 W_02
4	Utilization of the definition of the product and its manufacturing process to generate MRP schedule.	W_01 W_02
5	Development of information technology, and manufacturing management computer system - overview of contemporary solutions.	U_01 K_01 K_02

2. Teaching contents as regards classes

Class number	Teaching contents	Reference to teaching results for a module

3. Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module
1	Design of the process discrete manufacturing based on description of product structure and description of the technology production.	W_01
2	Introduction to the manufacturing management information system - familiar with the operation of the system.	W_01 W_02 U_01 U_02
3	Definition of the enterprise in the manufacturing management computer system, and other basic data (grants to users, the definition of cost groups, accounts groups, etc.).	W_01 W_02 U_01 U_02
4	Definition of Bill of Material (BOM) in the manufacturing management computer system.	W_01 W_02 U_01 U_02
5	Definition elements of the process discrete manufacturing (work center and production lines, routings and operations etc.) in the manufacturing management computer system.	W_01 W_02 U_01 U_02
6	Issuing orders and generating MRP schedule.	W_01 W_02 U_01 U_02
7	Designing your own the production process for selected product.	W_01 W_02 U_01 U_02
8	Implementation own project of the production process in the manufacturing management computer system.	W_01 W_02 U_01 U_02

4. The characteristics of project assignments

Students in two persons team are preparing their own project of the enterprise for discrete manufacturing. The students' task is to first develop the appropriate tables describing the product and its production process, and next define production in the manufacturing management information system. The ultimate goal of the entry data to the information system is to generate a schedule for MRP and other reports concerning production planning.

The methods of assessing teaching results

Effect symbol	<p style="text-align: center;">Methods of assessing teaching results <i>(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)</i></p>
W_01	Evaluation of activity during the performance of individual topics laboratories, preparation for implementation of the tasks in laboratories. A written examination (theoretical and practical with some elements of designing).
W_02	Evaluation of activity during the performance of individual topics laboratories, preparation for implementation of the tasks in laboratories. A written examination (theoretical and practical with some elements of designing).
U_01	A team project, a discussion during project presentation.
U_02	A written examination (theoretical and practical with some elements of designing).
K_01	Observing a student's involvement during the classes; a project.
K_02	Observing a student's involvement during the classes; a project. A written examination (theoretical and practical with some elements of designing).

D. STUDENT'S INPUT

ECTS credit points		
	Type of student's activity	Student's workload
1	Participation in lectures	10
2	Participation in classes	
3	Participation in laboratories	15
4	Participation in tutorials (2-3 times per semester)	4
5	Participation in project classes	
6	Project tutorials	1
7	Participation in an examination	
8		
9	Number of hours requiring a lecturer's assistance	30 <i>(sum)</i>
10	Number of ECTS credit points which are allocated for assisted work <i>(1 ECTS point=25-30 hours)</i>	1
11	Unassisted study of lecture subjects	10
12	Unassisted preparation for classes	
13	Unassisted preparation for tests	5
14	Unassisted preparation for laboratories	10
15	Preparing reports	
15	Preparing for a final laboratory test	
17	Preparing a project or documentation	5
18	Preparing for an examination	
19		
20	Number of hours of a student's unassisted work	30 <i>(sum)</i>
21	Number of ECTS credit points which a student receives for unassisted work <i>(1 ECTS point=25-30 hours)</i>	1
22	Total number of hours of a student's work	60
23	ECTS points per module <i>1 ECTS point=25-30 hours</i>	2
24	Work input connected with practical classes <i>Total number of hours connected with practical classes</i>	45
25	Number of ECTS credit points which a student receives for practical classes <i>(1 ECTS point=25-30 hours)</i>	1.5

E. LITERATURE

Literature list	<ol style="list-style-type: none"> 1. Brady J. A., Monk E. F., Wagner B. J., <i>Concepts in Enterprise Resource Planning Course Technology</i>, Thomson Learning, Boston, 2001 2. O'Leary D. E., <i>Enterprise Resource Planning Systems. Systems, Life Cycle, Electronic Commerce and Risk</i>, Cambridge University Press, 2000. 3. Magal S. R., Word J., <i>Integrated Business Processes with ERP Systems</i>, Jhn Wiley & Sons, 2011.
Module website	http://www.tu.kielce.pl/kis/ISZP/kis_ISZP_en.html