

## FACULTY OF COMPUTER SCIENCE AND MANAGEMENT

**SUBJECT CARD****Name in Polish: Metody modelowania systemów informacyjnych zarządzania****Name in English: Methods of MIS Modeling****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Level and form of studies: 1st level, full-time****Kind of subject: optional****Subject code IEZ1210****Group of courses NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15		15		
Number of hours of total student workload (CNPS)	30		30		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	1		1		
including number of ECTS points for practical (P) classes			1		
including number of ECTS points for direct teacher-student contact (BK) classes	0.5		0.5		

\*delete as applicable

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Knowledge of the software user requirements analysis methods
2. Basic knowledge and skills of the computer using

**SUBJECT OBJECTIVES**

C1 Getting knowledge about the methods and techniques of building models of management information systems in different functional areas of the organization.

C2 Getting the skills to apply the right methods and techniques for computer-aided modeling of management information systems.

**SUBJECT EDUCATIONAL EFFECTS**

relating to knowledge:

PEK\_W01 - student has ordered knowledge of the methods and techniques of building functional models of systems management functions with the structural approach.

PEK\_W02 - student has ordered knowledge of the methods and techniques of building data models of information systems management at the structural approach.

relating to skills:

PEK\_U01 - student can create a models of simple computer systems to support management solutions to common problems and issues in the various functional areas of the organization.

PEK\_U02 - student can use software tools to support the design of computer systems models.

relating to social competences:

<b>PROGRAMME CONTENT</b>		
<b>Form of classes - lecture</b>		<b>Number of hours</b>
Lec 1	Introduction. Repository.	2
Lec 2	Business function modeling -FHD.	2
Lec 3	Types of Functions dependency and events – FDD.	2
Lec 4	Basic rules and definitions for entities, relationships, attributes.	2
Lec 5	Entity Relational Model – ERD. Classical structures and generic patterns (ERD).	1
Lec 6	Consistence and completeness of the structured model checking methods.	2
Lec 7	Rules of the Transformation from ERD to logical relational database design.	2
Lec 8	Test	2
	Total hours	15
<b>Form of classes - class</b>		<b>Number of hours</b>
C11		
C12		
C13		
	Total hours	
<b>Form of classes - laboratory</b>		<b>Number of hours</b>
Lab 1	Case study "...": business terms - repository.	2
Lab 2	The subject (functional) areas extraction. Decomposition and grouping functions (FHD) – Office Visio.	2
Lab 3	Analysis of the interdependencies between functions and the events – process model building (FDD) – Office Visio.	2
Lab 4	Analysis of information needs: an entity type identification. Analysis of the business relationship – definition and representation.	2
Lab 5	Elaboration of the Entity Relationship Diagram - consistency and completeness checking – Office Visio.	2
Lab 6	Using the basic technique of logical relational database design – Office Access	2
Lab 7	Analysis of rules and details of business functions – the usage of an entity type by a function	2
Lab 8	Assessment of the students	1
	Total hours	15
<b>Form of classes - project</b>		<b>Number of hours</b>
Proj 1		
Proj 2		
Proj 3		

	Total hours	
<b>Form of classes - seminar</b>		<b>Number of hours</b>
Sem 1		
Sem 2		
Sem 3		
	Total hours	
<b>TEACHING TOOLS USED</b>		
N1. Computer N2. projector N3. Ms PowerPoint, Ms Word, Ms Visio N4. blackboard or whiteboard		

**EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT**

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end))	<b>Educational effect number</b>	<b>Way of evaluating educational effect achievement</b>
F1	PEK_U01, PEK_U02	Report
F2	PEK_U01, PEK_U02	Report
F3	PEK_U01, PEK_U02	Report
F4	PEK_U01, PEK_U02	Report
P1	PEK_W01, PEK_W02	Test
PLec = P1 PCI = F1+F2+F3+F4		

**PRIMARY AND SECONDARY LITERATURE**

**PRIMARY LITERATURE:**

- [1] Barker R., CASE\*Method – Entity Relationship Modelling, Addison-Wesley PC , 1989  
[2] Barker R., Longman C., CASE\*Method – Function and Process Modelling, Addison-Wesley PC , 1989

**SECONDARY LITERATURE:**

- [1] Gane C., Sarson T., Structured Systems Analysis - Tools and Techniques, Prentice-Hall, Englewood Cliffs, New Jersey, 1989

**SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)**

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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
**Methods of MIS Modeling**  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Management**  
AND SPECIALIZATION **Organizational Management (OM)**

<b>Subject educational effect</b>	<b>Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**</b>	<b>Subject objectives***</b>	<b>Programme content***</b>	<b>Teaching tool number***</b>

<b>PEK_W01</b> (knowledge)	S1_ZARZ_OM_W06	C1	Lec1, Lec2, Lec3,Lec6	N1, N2, N3, N4
<b>PEK_W02</b>	S1_ZARZ_OM_W06	C1	Lec4, Lec 5, Lec6, Lec 7	N1, N2, N3, N4
<b>PEK_U01 (skills)</b>	S1_ZARZ_OM_U05	C2	Lab 1, Lab 2, Lab 3, Lab 4, Lab 5, Lab 6, Lab 7	N1, N3, N4
<b>PEK_U02</b>	S1_ZARZ_OM_U05	C2	Lab 2, Lab 3, Lab 5, Lab6	N1, N3, N4
<b>PEK_K01</b> (competences)				

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above