

**Faculty of Computer Science and Management****SUBJECT CARD****Name in Polish** Modelowanie systemów informacyjnych zarządzania**Name in English** Management Information Systems Modeling**Main field of study (if applicable):** Management**Specialization (if applicable):** Business Information Systems**Level and form of studies:** 2nd level, full-time**Kind of subject:** obligatory**Subject code** IEZ1203**Group of courses** NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	<b>15</b>		<b>15</b>		
Number of hours of total student workload (CNPS)	<b>60</b>		<b>60</b>		
Form of crediting	<b>crediting with grade</b>		<b>crediting with grade</b>		
For group of courses mark (X) final course					
Number of ECTS points	<b>2</b>		<b>2</b>		
including number of ECTS points for practical (P) classes			<b>2</b>		
including number of ECTS points for direct teacher-student contact (BK) classes	<b>0.5</b>		<b>0.5</b>		

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**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 on skills building models of management information systems in different functional areas of the organization.

C2 Getting the skills to apply the right tools 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 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	Function dependency and events – FDD.	2
Lec 4	Basic rules and definitions for entities, relationships, attributes. Multiple and recursive relationship, generalization, aggregation.	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: F to E, DFD.	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>
Cl 1		
Cl 2		
Cl 3		
	Total hours	
<b>Form of classes - laboratory</b>		<b>Number of hours</b>
Lab 1	Case study “Hydraulics”: business terms - repository.	2
Lab 2	The subject (functional) areas extraction. Decomposition and grouping functions (FHD).	2
Lab 3	Analysis of the interdependencies between functions and the events – process model building (FDD).	2
Lab 4	Analysis of information needs: an entity type identification. Analysis of the business relationship – definition and representation (ERD)	2
Lab 5	Analysis of the movement of data between processes. Consistency and completeness checking.	2
Lab 6	Using the basic technique of logical relational database design	2
Lab 7	Analysis of rules and details of business functions – the usage of an entity type by a function	2
Lab 8	Signing indexes	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
P1	PEK_W01, PEK_W02	test
PLec = P1 PLab = F1+F2+F3		

#### **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  
Management Information Systems Modeling  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Management  
AND SPECIALIZATION Business Information Systems**

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
<b>PEK_W01 (knowledge)</b>	S2_BIS_W04	C1	Lec1, Lec2, Lec6	N1, N2, N3, N4
<b>PEK_W02</b>	S2_BIS_W04	C1	Lec3, Lec4, Lec 5, Lec6, Lec 7	N1, N2, N3, N4
<b>PEK_U01 (skills)</b>	S2_BIS_U03	C2	Lab 1, Lab 2, Lab 3, Lab 4, Lab 5, Lab 6, Lab 7	N1, N2, N3, N4
<b>PEK_U02</b>	S2_BIS_U03	C2	Lab 1, Lab 2, Lab 4, Lab 6, Lab7	N1, N2, N3, N4
<b>PEK_K01 (competences)</b>	K2_ZARZ_K05			

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

\*\*\* - from table above