Zał. nr 4 do ZW 64/2012

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| FACULTY **COMPUTER SCIENCE AND MANAGEMENT**  **SUBJECT CARD**  Name in Polish **Zarządzanie wymaganiami i jakością w projektach informatycznych**  Name in English **Requirements and quality management in IT projects**  Main field of study (if applicable): **Management**  Specialization (if applicable): **Business management**  Level and form of studies: **1st level, full-time**  Kind of subject: **optional**  Subject code **IEZ1100**  Group of courses **NO** |

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|  | Lecture | Classes | Laboratory | Project | Seminar |
| Number of hours of organized classes in University (ZZU) | 30 | 15 |  |  |  |
| Number of hours of total student workload (CNPS) | 60 | 30 |  |  |  |
| Form of crediting | Crediting with grade\* | |  |  |  |
| For group of courses mark (X) final course |  | X |  |  |  |
| Number of ECTS points | 2 | 1 |  |  |  |
| including number of ECTS points for practical (P) classes |  | 1 |  |  |  |
| including number of ECTS points for direct teacher-student contact (BK) classes | 1.0 | 0.5 |  |  |  |

\*delete as applicable

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| **PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**  1. General knowledge of concept and application of information technology in management  2. Knows a way to design simple software tools.  3. Capable of implement simple software tools. |

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| **SUBJECT OBJECTIVES**  C1. Get knowledge of traditional and modern methods of IT project management.  C2. To acquire capability to model and analyze business processes running in main organization activity areas and to identify information requirements related to those processes.  C3. To acquire social competences specific for the modeling and analyzing business processes running in main organization activity areas and to identifying information requirements related to those processes.  C4. To acquire capability to test and verify the software is matching the business requirements |

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| **SUBJECT EDUCATIONAL EFFECTS**  relating to knowledge:  PEK\_W01 – gained knowledge of managing the IT project lifecycle, from the organization business process identification, analysis and modeling, execution, to product testing and verification with the assumed model  PEK\_W02 – gained knowledge of requirements division and classification and the requirements sourcing methods and techniques.  PEK\_W03 – gained knowledge of testing techniques to validate the model and assure the quality of the product created in the model process of IT software delivery  relating to skills:  PEK\_U01 – be able to manage the process of defining, modelling and testing the implementation of software  PEK\_U02 – be able to design and test the software based of the business knowledge and documentation  PEK\_U03 – be able to present (in written and oral form) accepted and derived solutions, take part in discussions, and justify the proposals,  relating to social competences:  PEK\_K01 –Capable of collaborating and working in a project team. |

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| **PROGRAMME CONTENT** | | |
| **Form of classes - lecture** | | **Number of hours** |
| Lec 1 | Introdcution | 2 |
| Lec 2 | Introduction to Project management | 2 |
| Lec 3 | Introduction to Business Analysis and Requirements Engineering | 3 |
| Lec 4 | Requirements Engineering - elicitation and documentation | 3 |
| Lec 5 | Understanding Requirements – various kinds of requirements | 2 |
| Lec 6 | Introduction to object modelling | 2 |
| Lec 7 | Object modeling | 2 |
| Lec 8 | Advanced Object modeling | 2 |
| Lec 9 | Advanced Object modeling | 2 |
| Lec 10 | Software Quality management – part 1 ( Waterfall) | 3 |
| Lec 11 | Software Quality management – part 2 ( Agile) | 3 |
| Lec 12 | Advances testing techniques and automated tests | 2 |
| Lec 13 | Summary | 2 |
|  | Total hours | 30 |

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| **Form of classes - class** | | **Number of hours** |
| Cl 1 | Introdcution | 1 |
| Cl 2 | Introduction to Project management | 1 |
| Cl 3 | Introduction to Business Analysis and Requirements Engineering | 1 |
| Cl 4 | Requirements Engineering - elicitation and documentation | 2 |
| Cl 5 | Understanding Requirements – various kinds of requirements | 1 |
| Cl 6 | Introduction to object modelling | 1 |
| Cl 7 | Object modeling | 1 |
| Cl 8 | Advanced Object modeling | 1 |
| Cl 9 | Advanced Object modeling | 1 |
| Cl 10 | Software Quality management – part 1 ( Waterfall) | 1 |
| Cl 11 | Software Quality management – part 2 ( Agile) | 2 |
| Cl 12 | Advances testing techniques and automated tests | 1 |
| Cl 13 | Summary | 1 |
|  | Total hours | 15 |

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| **TEACHING TOOLS USED** |
| N1. Computer  N2. projector  N3. Ms PowerPoint, Ms Word, Ms Visio  N4. Whiteboard |

**EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT**

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| **Evaluation** (F – forming (during semester), P – concluding (at semester end) | Educational effect number | Way of evaluating educational effect achievement |
| F1 | PEK\_U01 | Practical assesments |
| F2 | PEK\_U02 | Practical assesments |
| F3 | PEK\_U03 | Practical assesments |
| F4 | PEK\_W01, PEK\_W02,  PEK\_W03 | Test |
| P=F1+F2+F3+3\*F4 | | |

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| **PRIMARY AND SECONDARY LITERATURE** |
| **PRIMARY LITERATURE:**  [1] Negotiation. Harvard Business Review Press, 2003  [2] Negocjacje /Harvard business essentials, MT Biznes, Konstancin-Jeziorna, 2003  [3] Requirements Analysis: From Business Views to Architecture, Prentice Hall 2002  [4] Peopleware: Productive Projects and Teams (3rd Edition), Addison-Wesley Professional, 2013  [5] Joel on Software, Electronic Industry Press, 1991  [6] Suzanne Robertson, James Robertson: Mastering the Requirements Process: Getting Requirements Right, Third Edition  [7] Lisa Crispin, Janet Gregory: Agile Testing: A Practical Guide for Testers and Agile Teams 1st Edition Addison-Wesley Professional, 2009  **SECONDARY LITERATURE:**  [1] Systems Analysis and Design with UML, Wiley, 2012  [2] A Guide to the Project Management Body of Knowledge: PMBOK(R) Guide 5th Edition, Project Management Institute, 2013  [3] A Guide to the Business Analysis Body of Knowledge (BABOK Guide) 3rd Edition, International Institute of Business Analysis, 2015  [4] Certified Tester Foundation Level Syllabus, ISTQB 2011 |
| **SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)** |
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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT

**Introduction to requirements and quality management in IT projects**

AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Management**

AND SPECIALIZATION **Business management**

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| **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\*\*\*** |
| **PEK\_W01 (knowledge)** | K1\_ZARZ\_W24  K1\_ZARZ\_W25  K1\_ZARZ\_W26 | C1, C3 | Lec1, Lec2 | N1, N2, N3, N4 |
| **PEK\_W02** | K1\_ZARZ\_W26 | C2 | Lec3, Lec4, Lec5, Lec6, Lec7, Lec8, Lec9 | N1, N2, N3, N4 |
| **PEK\_W03** | K1\_ZARZ\_W26 | C4 | Lec10, Lec11, Lec12 | N1, N2, N3, N4 |
| **PEK\_U01 (skills)** | K1\_ZARZ\_U05  K1\_ZARZ\_U15 | C1 | Cl1, Cl2 | N1, N2, N3, N4 |
| **PEK\_U02** | K1\_ZARZ\_U12  K1\_ZARZ\_U16 | C2, C4 | Cl3, Cl4, Cl5, Cl6, Cl7, Cl8, Cl9, Cl10, Cl1, Cl12 | N1, N2, N3, N4 |
| **PEK\_U03** | K1\_ZARZ\_K06 | C1, C3 | Lec1, Lec2, Cl1, Cl2 | N1, N2, N3, N4 |
| **PEK\_K01**  **(competences)** | K1\_ZARZ\_K02 | C3, C3 | Lec1, Lec2, Cl1, Cl2 | N1, N2, N3, N4 |

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

\*\*\* - from table above