

Course title: Information Systems Development		
Teacher(s): Miloš Ž. Papić		
Course status: elective		
Number of ECTS credits: 10		
Condition: None		
Course objectives		
The goal of the course is for students to acquire the necessary competences so that they can contribute to theory and practice in the object-oriented but also traditional domain of designing and developing information systems with an emphasis on advanced modern modeling techniques and their correlation and integration.		
Learning outcomes		
Insight into essential research problems in methods for development, acquisition and evaluation of information systems, with focus on advanced modern modelling techniques.		
Ability to discuss and compare modelling techniques and evaluate their applicability in various contexts, for instance related to the problem domain of the student's own thesis. Ability to explain modelling techniques for other people.		
Ability to evaluate information systems modelling in a broader context and reflect over ethical challenges in projects with model-based development of information systems.		
Contents		
Advanced development methods for information systems, research into evaluating such methods. Modelling, problem analysis, requirements specification. Combination of formal and informal modelling techniques. Integration of functional and non-functional requirements.		
Recommended literature		
[1] RUSS, F. (2002). EBOOK: Information Systems Development: Methods-in-Action. McGraw Hill.		
[2] Iivari, J., Hirschheim, R., Klein, H. (2000). A Dynamic Framework for Classifying Information Systems Development Methodologies and Approaches, Journal of Management Information Systems, 17:3, 179-218, DOI: 10.1080/07421222.2000.11045656.		
[3] Ilić, S., Veljović, A. Software design with databases in UML, Faculty of Technical Sciences in Kosovska Mitrovica and Faculty of Technical Sciences in Čačak, 2017. ISBN: 978-86-7776-207-0		
[4] Booch, G., Rumbaugh, J., Jacobson, I. UML User Guide, Belgrade: CET, 2000. ISBN: 978-86-7991-111-9		
[5] Veljović, A., Papić, M. (2020). Analysis and design of information system in practice, Čačak: Faculty of Technical Sciences, ISBN: 978-86-7776-244-5		
Number of active classes: 7	Theory: 5	Practice: 2
Teaching methods		
Lectures, consultations, with the realization of theoretical and practical interactive hybrid teaching with cooperative study, research and problem solving in the field of production information systems.		
Evaluation (maximum number of points 100)		
Prerequisites: 50 points		
Final part of the exam: 50 points		