Study program: Multimedia Communication Technologies

Course title: Software Development Tools

Professor/assistant: Miloš B. Stojanović, Ph. D.

Type of course: compulsory

ECTS credits: 6

Pre-requisites: none

Aims of the course:

The aim of the course is to introduce students with concepts, principles and methods in architecture and design of software systems using CASE tools.

Learning outcomes:

Students are able to: use modern software design tools, apply methodologies for software development including architectural styles and architectural patterns, design patterns, and anti-patterns.

Syllabus

Theoretical part

Introduction to the basic and modern concepts and principles of software architecture and design. Development of architecture and design of software systems by applying architectural and design forms. Improving software quality attributes and refactoring design. Documentation of software architecture and design. Evaluation of software architecture and design.

Practical part

Design Tools, Source Code Tools, Executable Code Tools.

Literature

1. E. Gamma, R. Helm, R. Johnson, J. Vlissides, Gotova rešenja – elementi objektno orjentisanog softvera, CET, 2009.
2. A. Shalloway, Projektni obrasci, Mikro knjiga, 2010.
3. S. Vlajić, Softverski paterni, Zlatni presek, 2014.
4. G. Booch, J. Rumbaugh, I. Jacobson, UML – vodič za korisnike, CET, 2001.

Number of active classes 75			Other forms of teaching:
Lectures: 45	Practical classes: 30	Research work:	

Teaching methods

Grading system (maximum 100 points), **grading scale** from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

Pre-exam obligations	**points**	**Final exam**	**points**
activity during theoretical lectures	**10**	written exam	**30**
practical training		oral exam	
colloquium(s)/seminar papers	**40+20**		
Sum	**70**	**Sum**	**30**