### **Course title: Educational Software**

Lecturer: Zoran Budimac

Status: elective

**ECTS**: 15

# **Requirements**:

#### Learning objectives

Training of future teachers of informatics to understand methods and work principles of ready-made software for classroom usage, and for their handling through creation of own lectures using various tools.

# Learning outcomes

*Minimal:* By the end of the course, it is expected that student is practically prepared to use educational software packages presented during lectures, and to be able to create own multimedia lessons for the area of expertise. *Desirable*: By the end of the course, it is expected that student understand general principles of work of educational software applications, to be able to adjust and use in everyday teaching any software encountered in practice, to be able to critically analyze and choose the most appropriate educational software for usage in individual fields, and to be able to create own multimedia lessons.

## Syllabus

Theoretical instruction

Basic notions and definitions. Basic elements of electronic methodologies, didactics and pedagogy. History of educational software and usage examples. Principles of creation of educational software. Analysis of metamodels of educational software. Usage of Internet as educational media.

Student research

Detailed presentation of abilities, training and usage of at least two specific educational software applications. Appliance of educational software for creation of electronic lessons on a given topic. Presentation of tools for usage of Internet as educational media and creation of Internet electronic lesson.

### Literature:

# Suggested:

1. William & Katherine Horton: E-Learning Tools and Technologies, Wiley Publishing, Inc. 2003.

# Alternative:

- 1. Michael Allen: Guide to E-learning, John Wiley & Sons, Inc. 2003.
- 2. Ruth Calvin Clark & Richard Mayer: *e-Learning and the Science of Instruction*, Pfeiffer, Imprint of John Wiley & Sons, Inc. 2003.

Weekly teachi	Other:			
Lectures: 5	<b>Exercises:</b>	Other forms of teaching:	Student research: 5	

### **Teaching methodology**

During lectures, classical methods of teaching that includes video-beams are used. All of the presentations are available on Departments web-site. During exercises concrete software applications of the educational type are presented and explained in details. During practical exercises, presented methods are exercised by creation of finished electronic and Internet-based lessons. At exercises, students knowledge is tested by two colloquias covering knowledge presented at lectures and exercised within practical exercises.

Grading (maximal number of points 100)					
Pre-exam requirements	points	Final exam	points		
Activities during lectures		Seminar paper	50		
Activities during practical exercises					
Colloquia	30				
Practical assignments	20				