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Level: Bechelor studies

**Course title:** Educational software

Lecturer: Aleksandra Đ. Klašnja-Milićević

Status: elective

**ECTS:** 7

## Requirements: none

## Learning objectives

Introducing students with methods and work principles of readymade software for classroom usage, and for their handling through creation of own lectures using various tools.

### Learning outcomes

*Minimum:* By the end of the course, students should be able to practically use educational software packages presented during the lectures, and to create their own multimedia lessons in the area of expertise.

*Desirable:* By the end of the course, students should be able to understand the general principles of work of educational software applications, to adjust and use in everyday teaching any software encountered in practice, to critically analyze and choose the most appropriate educational software for usage in individual fields, and 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 meta-models of educational software. Usage of the Internet as educational media.

Practical instruction

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

### Literature

#### Recomended

Luckin, R., Puntambekar, S., Goodyear, P., Grabowski, B. L., Underwood, J., & Winters, N. (2013). *Handbook of design in educational technology*. Routledge.

Tchounikine, P. (2011). Computer Science and Educational Software Design: A Resource for Multidisciplinary Work in Technology Enhanced Learning. Springer.

Fenrich, P. (2014). Practical Principles of Instructional Design, Media Selection, and Interface Design with a Focus on Computer-based Training/Educational Software. Informing Science.

Other:

# Weekly teaching load Lectures: 2 Exercises: Practical Exercises: 3 Student research:

### **Teaching methodology**

Classical teaching methods are used in lectures, including the use of the video-beam and slides. Through exercises, specific software applications for usage in education are presented and explained in detail, and students are prepared to use them. Through practical exercises, presented methodology is trained by students through creation of own electronic and Internet lessons. During the exercises, students' knowledge is tested with two tests, covering the material presented in lectures, and with several practical assignments.

### Grading method (maximal number of points 100)

Pre-exam obligations	points	Final exam	points
Practical assignments	30	Oral exam	40
Tests	30		