Study program: Information Technologies

Type and level of studies: Master studies (second level of studies)

Course unit: ***Educational Technology***

Teacher in charge: ***Veljko Aleksić***

Language of instruction: English

ECTS: 6

Prerequisites: -

Semester: Winter

Course unit objective

Introduction to the theories and practice of multimedia systems application and ICT in education. Understanding the methods and principles of modern educational technologies and software used in classes and creating lessons through a variety of techniques and tools. Encouraging the participants of educational process to apply educational technology.

Learning outcomes of Course unit

Upon the successful completion of the course, students will be able to: Effectively use multimedia technology, educational software and hypermedia systems that were presented; Understand the principles of operation and characteristics of modern ICT and educational software, and to be able to critically analyze and choose it for use in certain areas; Create multimedia and/or hypermedia lessons.

Course unit contents

Theoretical classes

History of educational technology and examples. Modern trends in ICT development and its impact on educational process. Principles and characteristics of educational technologies. Modern concepts of organizing teaching activities. Basic principles of operation and implementation of teaching using ICT. Overview of the components and structure of referent multimedia and hypermedia educational systems. Principles of creating and implementing educational software. Using Internet, virtual reality (VR) and augmented reality (AR) technologies as educational medium. Gathering information, e-libraries, public databases. Ethical aspects of the use of ICT in teaching.

Practical classes

Detailed overview of possibilities, training and usage of available educational technology. Using educational software to create e-lessons. Presenting tools for using Internet as educational medium and creating e-courses. Implementation and training for collaborative teaching. Discussion and presentation of papers on the contents of lectures, preparation and presentation of teaching materials.

Literature

[1] Barkley, F. (2010). Student Engagement Techniques: A Handbook for College Faculty. SF: Jossey-Bass.

[2] McGonigal, J. (2011). Reality is Broken: Why Games Make Us Better and How They Can Change the World. NY: Penguin Press.

[3] Clark, R., Mayer, R. (2008). E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. SF: Pfeiffer.

[4] MacDonald, J., Crenor, L. (2010). Learning with Online and Mobile Technologies: A Student Survival Guide. Burlington: Gower.

Number of active teaching hours				**Other classes**
Lectures: 2 (30)	Practice: 2 (30)	Other forms of classes: /	Independent work: /	

Teaching methods

On-line lectures; Case studies, Discussions via forums and wikis; Practical work in hypermedia laboratory.

Examination methods (maximum 100 points)

Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	10	oral examination	30
Practical classes/tests	10	written examination	
Seminars/homework	20		
Project	30		

Grading system

Grade	**No. of points**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**less than 51**	Failing