COURSE OUTLINE

1. GENERAL

SCHOOL	APPLIED SCIENCES		
DEPARTMENT	DIGITAL MEDIA AND COMMUNICATION		
LEVEL OF STUDY	UNDERGRADUATE		
COURSE UNIT CODE	DMC 752	**SEMESTER OF STUDY**	7th
COURSE TITLE	DIGITAL TECHNOLOGIES IN EDUCATION		

COURSEWORK BREAKDOWN	**TEACHING WEEKLY HOURS**	**ECTS Credits**
Lectures	2	
Practice - Workshops	1	
Total	3	4

COURSE UNIT TYPE	Elective, General Course Infrastructure
PREREQUISITES :	-
LANGUAGE OF INSTRUCTION/EXAMS:	GREEK
COURSE DELIVERED TO ERASMUS STUDENTS	Yes (in English)
MODULE WEB PAGE (URL)	TBA

2. LEARNING OUTCOMES

Learning Outcomes

This course focuses on the impact of new technologies in the educational process. Today there is a wide range of digital applications that enhance the educational process and promote e-learning such as interactive multimedia applications, intelligent tutoring systems, Adaptive Hypermedia systems, learning management systems (LMS) etc The course will also analyze case studies of innovative applications in schools and in higher educational institutions. The purpose this course is also to give students an insight of how new technologies affect the educational process today and how they will shape education in the near future.

Upon successful completion of the course the student must be able to:

- Acquire critical understanding of the use of digital technologies in education and the differences between them.
- Assess, select and combine the appropriate technologies which can be applied in different educational settings and in different levels of education (secondary, tertiary education, life-long learning etc)
- Evaluate and compare the various educational technologies depending on the field of application
- Adapt to the technological developments and rapid changes in educational technologies

General Skills

- Teamwork
- Critical thinking
- Free, creative and inductive thought
- Working in interdisciplinary field
- Search, Analysis and Synthesis of data and information with the use of necessary technologies.

3. COURSE CONTENTS

- Milestones in the evolution of educational technologies
- Interactive multimedia applications in education

- Educational applications that combine entertainment and learning (edutainment), Intelligent games (Serious games), Virtual reality and augmented reality in education, Simulations applications.
- Video and online video and its use in education. Storytelling.
- Intelligent tutoring systems.
- Adaptive Hypermedia systems
- Collaborative learning applications,
- mobile learning.
- Learning Management systems (LMS)
- Web 2.0, Social Networks and their applications in education (facebook,wikis,blogs κτλ)
- Innovative case studies
- Distant learning and initiatives in e-learning. Massive open online courses (Moocs, e.g Edx, Coursera).
- Developments and trends in educational technologies and insights of how these developments are going to affect the future of education

4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	In-Class
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Support of the learning process through the e-class platform. Support of the learning process through multimedia video lessons.
TEACHING METHODS	

Method description	***Semester Workload***
Lectures	26
Practice - Workshops	13
Project Work (non-compulsory)	24
Personal Study	37
Total Work Load for student with project work	***100***
Lectures	26
Practice - Workshops	13
Personal Study	61
Total Work Load for student without project work	***100***

ASSESSMENT METHODS	I. End of Semester Formal Examination (60-100%) - Short answer questions - Essay questions - Questions of solving communication problems. II. Presentation of Group Projects (40%-0%)

5. RESOURCES

Recommended Book Resources:

- *Web 2.0 and Emerging Learning Technologies, http://en.wikibooks.org/wiki/Web_2.0_and_Emerging_Learning_Technologies*
- Retalis Simeon (2005). Advanced internet technologies in the service of education, Kastaniotis
- A. Kyriazis, S. Bakogiannis, (2003) Use of new technologies in education, New Technologies Publications.

- Ashes, Harry (2002) Informatics in Education, Typothito
- Lee M.J.W., McLoughlin C. (2010) Web 2.0 based E-learning: Applying Social Informatics for Tertiary Teaching, IGI Books.
- Bonk, C. J. (July 2009). The World is Open: How Web Technology is Revolutionizing Education. San Francisco, CA: Jossey-Bass,

Recommended Articles and papers:

- Kleftodimos A., Evangelidis (2013) An Overview of Web Mining in Education. *In Proceedings of the Panhellenic Conference of Information Technology (PCI 2013)*, Thessaloniki, Greece.
- G. Lappas, A. Kleftodimos (2010), "A Multimedia Application for Teaching A Multimedia Course in Communication Studies", *International Journal of Electronics, Computing and Engineering Education*, 1(1), pp. 29-33.
- Hui, Kin-chuen.Chung, Ronald Chi-kit.Göbel, Stefan.Jin, Xiaogang.Li, Eric C.-L.Pan, Zhigeng.Wang, Charlie C. L. (2007), Technologies for E-Learning and Digital Entertainment, Second International Conference, Edutainment 2007, Hong Kong, China, June 11-13, 2007. Proceedings, Lecture Notes in Computer Science, Vol. 4469
- Anderson, N., & Lin, C. (2009). Exploring technologies for building collaborative learning communities among diverse student populations. In Proceedings of the 14th annual ACM SIGCSE conference on Innovation and technology in computer science education (p. 243). Paris, France.
- Coffman, T., & Klinger, M. B. (2008). Utilizing virtual worlds in education: The implications for practice. *International Journal of Social Sciences, 2*(1), 29-33

Large number of articles and papers from:

Computers in Education Journal,
British Journal of Educational Technology (BJET)
The Proceedings of National Conference "Integration and Use of ICT in the educational process