"Introduction to Educational Technology" (EDU660)

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF SOCIAL & HUMANITIES (LIMASSOL UNIVERSITY) & SCHOOL OF HEALTH AND WELFARE SCIENCES (WEST ATTICA UNIVERSITY)
SECTION	DEPARTMENT OF EDUCATIONAL SCIENCES & DEPARTMENT OF BIOMEDICAL SCIENCES
LEVEL OF STUDIES	MA

COURSE CODE	**EDU 660**	**SEMESTER OF STUDY**	**A΄**
COURSE TITLE	**Introduction to Educational Technology**		

INDEPENDENT TEACHING ACTIVITIES *where credit is awarded for discrete parts of the course e.g. lectures, laboratory exercises, etc. If credit is awarded for the whole course, indicate the weekly teaching hours and the total number of credits*	**WEEKLY TEACHING HOURS**	**CREDIT UNITS**
LECTURES AND LABORATORY EXERCISES	3	10
Add rows if necessary. The teaching organisation and the teaching methods used are described in detail in (d).		

TYPE OF *general background, special background, specialization, general knowledge, skills development*	*General background*
PREREQUISITE COURSES:	-
LANGUAGE OF TEACHING AND EXAMINATION:	GREEK
THE COURSE IS OFFERED TO STUDENTS	NO
ELECTRONIC COURSE PAGE (URL)	https://moodle.uol.ac.cy/login/index.php

(2) LEARNING OUTCOMES

Learning Outcomes

The learning outcomes of the course are described as the specific knowledge, skills and competences of an appropriate level that students will acquire after successful completion of the course.

Consult Annex A
- *Description of the Level of Learning Outcomes for each cycle of study according to the Qualifications Framework of the European Higher Education Area*
- *Descriptive Indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Annex B*
- *Learning Outcomes Writing Comprehensive Guide*

The aim of the course is to introduce students to the scientific area of Educational Technology through the presentation and discussion of various modern digital media and tools as well as the methods of their use in educational practice.

Specifically, students after successful completion of the course will have acquired basic and sufficient knowledge about:

- the transformative role of the Internet in education
- online learning opportunities (MOOCs, online courses, and open educational resources)
- web-based educational activities and their contribution to the promotion of active and interactive learning
- digital libraries and repositories of educational material
- the issues of respecting/protecting the copyright of authors of content distributed via the web
- the role of *generative AI* tools to support the development of educational content
- distance and blended learning
- the Learning Management Systems
- web explorations as exploratory learning experiences
- video and interactive video as teaching and learning tools
- the modern era of the Information Society and its implications for education and learning
- the profile and needs of today's learners and the role of the teacher
- education objectives and trends for 2030 at European level
- new technologies (cloud computing, Internet of Things, mass participation technologies, virtual and augmented reality, holographic projection, haptic interactions, social computing) in education
- modern and emerging trends and technologies (virtual world environments, gamification and digital game environments, personalised learning, artificial intelligence applications) for enhancing learning experiences and transforming education
- In addition, students after successful completion of the course will be able to:
- design the structure, format, functions and content of an educational website
- develop websites using modern online building tools
- use the possibilities offered by tools for integrating interactive elements into websites
- create videos in alternative ways (screen recording, video recording, multimedia synthesis) for educational use using appropriate tools
- edit videos using appropriate tools
- create interactive videos and video lessons using appropriate tools

General skills

Taking into account the general competences that the graduate should have acquired (as listed in the Diploma Supplement and listed below), which one(s) does the course aim at?

Search, analysis and synthesis of data and information, using the necessary technologies	*Project planning and management*
Adapting to new situations	*Respect for diversity and* *Respect for the natural environment*
Decision-making	*Demonstrate social, professional and ethical responsibility and*
Autonomous work	*sensitivity to gender issues*
Teamwork	*Exercise of criticism and self-criticism*
Working in an international environment	*Promoting free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Generating new research ideas	*Other...*
	....

The course aims to:
- Search, analysis and synthesis of data and information, using the necessary technologies
- Adapting to new situations
- Autonomous work
- Teamwork
- Working in an interdisciplinary environment

(3) COURSE CONTENT

LECTURES - UNITS

1. Exploring the Digital Education Ecosystem: The Internet, Resources, and Educational Technology.

   This module covers issues relating to the role of the Internet in education, digital resources, and the integration of technology in teaching and learning. In particular, it discusses: the importance of the Internet for education and its transformative role; online learning opportunities (MOOCs, online courses, and open educational resources); web-based educational activities and their contribution to the promotion of active and interactive learning; educational resources on the web; digital libraries and repositories of educational materials; distance and blended learning; Learning Management Systems; web explorations as exploratory learning experiences.

2. Education in the Information Society.

   This section presents the current era, which brings new challenges and opportunities for the education system. Among other things, issues related to the Information Society are discussed, as well as the impact of new information and communication technologies in the modern era. The implications of the modern era for education and learning are analysed, while the most up-to-date statistics in Europe and Greece are presented. The profile of today's learners is mapped in order to understand their needs. At the same time, the role of the teacher in this new era is clarified. It also presents the objectives of education and the trends for 2030 at European level.

3. New Information and Communication Technologies in Education.

   This section presents modern technologies that are used or can be used for educational purposes. The aim is to understand these modern technologies and the possibilities that they can offer in Education. In particular, the following technologies/services are presented and discussed: cloud computing, Internet of Things, crowdsourcing, virtual and augmented reality, holographic projection, haptic contacts, social computing.

4. Enhancing learning experiences through modern and emerging trends in Educational Technology
   This section presents contemporary and emerging trends and technologies that can enhance learning experiences and have a transformative effect on education. In particular, virtual world environments, gamification and digital game environments, personalized learning, and finally artificial intelligence applications are discussed.

LABORATORY EXERCISES

1. Development of interactive educational websites

The subject of this workshop is online website development tools such as Google Sites, Wix, etc. Their features and functions are discussed, demonstrated and tested, and their user-friendly interface is highlighted. The value of interactive elements in educationally oriented websites is highlighted. Accessibility issues as well as respect for copyright are also discussed. Finally, the role of generative AI tools to support the development of educational websites and their content is discussed.

2. Development of interactive video-based lessons

The second workshop will focus on video as a digital medium/tool for teaching and learning. Issues related to its potential, limitations and ways of its educational use are discussed and tools for video creation and editing are presented. The concept of interactive video, its role and its usefulness as an educational tool are analysed. Digital environments for creating interactive video lessons are presented and tested. Finally, the role of generative AI tools to support the development of interactive and non-interactive educational videos is discussed.

(4) TEACHING and LEARNING METHODS - EVALUATION

METHOD OF DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES *Use of ICT in Teaching, Laboratory Training, Communication with students*	ICT and their use in education are the subject of the course and are therefore used extensively in Teaching, Laboratory Training, Communication with students.	
ORGANISATION OF TEACHING *The way and methods of teaching are described in detail.* *Lectures, Seminars, Laboratory Exercise, Field Exercise, Literature Study & Analysis, Tutoring, Practical (Placement), Clinical Exercise, Artistic Workshop, Interactive Teaching, Educational Visits, Study (project), Writing a paper / assignment, Artistic creation, etc.* *The student's hours of study for each learning activity and the hours of unguided study according to ECTS principles are indicated.*	*Activity*	*Semester workload*
	Lectures	*39*
	Laboratory exercises	*13*
	Interactive Teaching	*13*
	Study & Literature Analysis	*26*
	Study preparation	*26*
	Job Writing	*36*
	Independent Study	*47*
	Total Course	**200**
STUDENT ASSESSMENT *Description of the evaluation process* *Language of Evaluation, Evaluation Methods, Formative or Inferential, Multiple Choice Test, Multiple Choice Test, Short Answer Questions, Test Development Questions, Problem Solving, Written Work, Report, Oral Examination, Oral Examination, Public Presentation, Laboratory Work, Clinical Examination of a Patient, Artistic Interpretation, Other* *Explicitly identified assessment criteria are stated and if and where they are accessible to students.*	*Weekly interactive activities (20% in total):On a weekly basis, students will have the opportunity to interact with the teacher, other students and/or other relevant stakeholders to complete certain activities. These activities are an integral part of the course and help the student understand and assimilate each week's material. The instructor will select 10 interactive activities prior to the start of the course that will count towards the final course grade, each worth 2% of the grade. The remaining interactive activities will be available for students to complete (but will not contribute to their final grade) to facilitate self-assessment and to aid in-depth learning.* *Individual and/or collaborative work (30%): the instructor will assign the students an individual and/or collaborative project and will be evaluated according to the rubric of the project.*	

	Final examination (50%): the final examination will assess the students' understanding of the learning objectives set for the course and their ability to apply their knowledge to real-life scenarios in the field of Special Education and New Technologies.

(5) RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

Roblyer, M.D. & Doering, A.H. (2014). *Educational Technology and Teaching*. (Edited / Translated by.

Vosinakis, S. (2015). *Virtual worlds* [Undergraduate textbook]. Kallipos, Open Academic Publications. https://hdl.handle.net/11419/3187

Dukakis, S., Moudridou, M., Niari, M., & Vlamos, P. (2023). *Sustainability, human well-being and the future of education* [Undergraduate textbook]. Kallipos, Open Academic Publications. https://dx.doi.org/10.57713/kallipos.-260

Komis, V. (2019) *Introduction to the educational applications of Information and Communication Technologies*. New Technologies Publications.

Tzimogiannis, A. (2019). *Digital Technologies and Learning in the 21st Century*. Athens. Kritiki Publications.

Tsiatsos, Th. (2015). *Educational internet environments* [Undergraduate textbook]. Kallipos, Open Academic Publications. https://hdl.handle.net/11419/3200

Fesakis, G. (2019). *Introduction to the applications of digital technologies in education. From Information and Communication Technologies (ICT) to Digital Literacy and Computational Thinking.* Athens.

- Related scientific journals:

International Journal of Information *and* Learning Technology (IJILT) - Emerald Publishing.

Journal *of* Computer *Assisted* Learning (JCAL) - Wiley.

Journal of Research in Innovative *Teaching & Learning* (JRIT) - Emerald Publishing.

Computers & Education - Elsevier.

Computers & Education Open (CAEO) - Elsevier.

Computers and Education: X Reality (CEXR) - Elsevier.

Computers & Education: artificial intelligence - Elsevier.

Technology, Knowledge and Learning - Springer.

British Journal *of Educational Technology* (BJET) - British Educational Research Association.

Education and Information Technologies - Springer.

Educational Technology Research and Development - Springer.

International Journal of Artificial Intelligence in Education (IJAIED) - Springer.

IEEE Transactions on Learning Technologies - IEEE.