ΠΔΚ005 – APPLICATIONS OF DIGITAL TECHNOLOGIES IN TEACHING
COURSE OUTCOME

1. GENERAL

INSTITUTION	**UNIVERSITY OF THESSALY**		
SCHOOL	**SCHOOL OF TECHNOLOGY**		
DEPARTMENT	**FORESTRY, WOOD SCIENCES & DESIGN**		
STUDY LEVEL	*Special Pedagogical and Teaching Training Certification Study Program*		
COURSE CODE	**ΠΔΚ005**	**SEMESTER**	9th
COURSE TITLE	**APPLICATIONS OF DIGITAL TECHNOLOGIES IN TEACHING**		

SELF-ENDED TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
THEORETICAL PART	**2**	
TOTAL	**2**	**4**

COURSE TYPE	MANDATORY
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO
COURSE WEBSITE (URL)	They will be created by the electronic support services of the University of Thessaly

2. LEARNING OUTCOMES

Learning Outcomes

The purpose of the course is the development of basic skills for the pedagogically effective use and application of digital technologies in teaching practice and the educational process. At the end of the course students will be able to:

• know and understand the phases, contemporary trends, policies for the inclusion of digital technologies in the educational process, teaching practice and the assessment of learning,

• analyze, evaluate, select and document the most pedagogically appropriate digital system (hardware, general-purpose software and/or educational software) to support specific teaching strategies,

• design and create documented educational scenarios with the support of digital technologies.

General Skills

- Search, analyze and synthesize data and information, using appropriate technologies
- Adaptation to new teaching environments
- Decision making
- Autonomous Work
- Teamwork
- Demonstration of social, professional and ethical responsibility
- Exercise criticism and self-criticism
- Promotion of free, creative and inductive thinking
- Critical consideration of the applications of digital technologies in teaching and learning

3. COURSE CONTENT

The course aims to cover the following:

• Basic concepts of Teaching & Digital Technologies

• Designing educational scenarios that utilize Digital Technologies • Study of Digital Technologies to support: o Self-teaching and Guided Education (tutorials) o Drill and Practice o Problem solving o Modeling o Virtual labs and simulations o Inquiry-based Learning o Collaborative Learning o Assessment of Learning o Educational Games (educational games) • Examples: educational software, digital learning objects and educational scenarios that leverage Digital Technologies • Educational robotics • E-learning and distance learning • Collaborative learning software applications

4. TEACHING AND LEARNING METHODS - ASSESSMENT

<table>
<tr><td>TEACHING METHOD</td><td colspan="2">In combination, educational methods and techniques are applied that aim to strengthen the active participation of students and that give the greatest possible effectiveness to "face-to-face" teaching: Enriched presentation, questions - answers, discussion, working groups.</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</td><td colspan="2">Use, flexibly and alternatively, supervisory means that utilize ICT and more specifically: PC (multimedia PC), video data projector, internet, synchronous and asynchronous distance learning platforms (MS Teams/e -class).</td></tr>
<tr><td>TEACHING ORGANIZATION</td><td></td><td>
<table>
<tr><th>Activity</th><th>Semester Workload</th></tr>
<tr><td>Lectures</td><td>26</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Independent Study</td><td>74</td></tr>
<tr><td>Total Course
(25 workload hours per credit unit)</td><td>100</td></tr>
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<tr><td>STUDENTS EVALUATION</td><td colspan="2">The evaluation of the students will be carried out as follows:
a) with their active participation in the educational process (weight 5%),
b) by submitting a paper in which the student is invited to critically develop a topic from the course curriculum, presenting at the same time a case study (weight 30%), and finally
c) the final written exam in which the student is asked to respond critically to issues related to the applications of digital technologies in the educational process (weight 65%).</td></tr>
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5. RECOMMENDED BIBLIOGRAPHY

- Κόμης, Βασίλειος (2004). Εισαγωγή στις Εκπαιδευτικές Εφαρμογές των Τεχνολογιών της Πληροφορίας και των Επικοινωνιών, Εκδόσεις Νέων Τεχνολογιών. [Κωδικός Βιβλίου στον Εύδοξο: 3327]
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- Τζιμογιάννης, Α. (2017). Ηλεκτρονική Μάθηση. Εκδόσεις Κριτική [Κωδικός Βιβλίου στον Εύδοξο: 68379927]

- Kanematsu, H., & Barry, D.M. (2016). STEM and ICT Education in Intelligent Environments. Springer.
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- Slade, T. (2020). The eLearning Designer's Handbook: A Practical Guide to the eLearning Development Process for New eLearning Designers (2nd Edition). Slade.
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