IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN EDUCATIONAL PRACTICE AND ADMINISTRATION

1. GENERAL

SCHOOL	SCHOOL OF HUMANITIES AND SOCIAL SCIENCES		
DEPARTMENT	PEDAGOGICAL DEPARTMENT OF PRIMARY EDUCATION		
STUDY PROGRAM	POST-GRADUATE		
COURSE CODE	**AY2**	**SEMESTER OF STUDIES**	**1**
COURSE TITLE	**IMPLEMENTATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN EDUCATIONAL PRACTICE AND ADMINISTRATION**		
INDEPENDENT TEACHING ACTIVITIES		**TEACHING HOURS**	**ECTS UNITS**
Total		**3 hours / week**	**7,5**
COURSE TYPE:	Core		
PREREQUISITE COURSES	NONE		
LANGUAGE OF INSTRUCTION and EXAMS	GREEK		
COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)	https://eclass.uth.gr/		

2. LEARNING OUTCOMES

Learning outcomes
At the end of the course, students are expected to: − Be able to evaluate the quality of ICT usage in a learning environment − Distinguish the main factors contributing to the effective utilization of new technologies in education and recognize the role of educational administrators in the qualitative use of new technologies. − Identify the administrative challenges faced by school principals in promoting the use of ICT with high added value. − Understand and evaluate the perspectives of educators and school administrators on the promotion and integration of ICT into the educational process. − Understand the components of an educational management information system, evaluate its quality, and determine the added value it provides.

- Understand and assess the views of educational administrators on the integration of information systems into education administration, as well as their improvement and expansion within the framework of enhancing the digital school.
- Be introduced to the synergistic use of operational research methods and information technology to facilitate education administration.
- Understand the history and main pillars of European Educational Policy regarding ICT.
- Know the components of the TPACK model, evaluate its strengths and weaknesses, and use it to analyze teacher professional development programs in ICT.
- Distinguish between different models of e-learning and Massive Open Online Courses (MOOCs).
- Utilize collaborative internet services and distance learning tools within a proper framework of usage.
- Use and design their own teaching scenarios based on STEM and educational robotics.
- Know a variety of AI software useful for education
- Recognize the utility of educational data analytics algorithms and be able to describe certain algorithms.

General Skills
Development of critical thinking/research attitude
Developing argumentative skills
Development of skills in interpretation/editing of scientific articles
Cultivating skills in handling educational software and education management software
Developing collaboration skills in work groups

3. COURSE CONTENT

This course addresses the following issues:

Historical and critical approach to the integration of ICT in education including the relevant European and National policy. Barriers to integrating ICT in education in ways the offer high added learning value, the relevant perspectives and concerns of school administrators and the use of TPACK as a model to assess teacher readiness to teach with ICT.

Digital tools supporting the educational process and educational administration, educational management information systems. Development of digital skills. E-learning, introduction to educational data analytics and AI uses in education Collaborative Internet Services in Education

4. TEACHING and LEARNING METHODS - ASSESSMENT

DELIVERY METHOD	In-person and distance learning

<table>
<tr><td>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</td><td>viewing slides, using the asynchronous education platform to post course materials and student assignments as well as for the communication between teachers and students, searching for electronic journals and sources</td></tr>
<tr><td>ORGANIZATION OF TEACHING</td><td>
<table>
<tr><th>Activity</th><th>Semester Workload (hours)</th></tr>
<tr><td>Lectures</td><td>36</td></tr>
<tr><td>Preparation for lectures with presentations and commenting on relevant articles</td><td>36</td></tr>
<tr><td>Study after lectures</td><td>72</td></tr>
<tr><td>Final Assignment</td><td>45</td></tr>
<tr><td>Course Total</td><td>189</td></tr>
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<tr><td>ASSESSMENT</td><td>For the final evaluation, the following criteria will be taken into account based on the respective quotas:

1. Participation:

Active - creative participation in all course activities is desirable, participation in the various deliverables during the workshop, participation in discussions regarding the bibliography and the concerns that will arise.

2. Knowledge test after each module (X3 i.e. 10% each): 30%

This exam aims to confirm the understanding of the theoretical concepts presented and discussed during the theoretical courses.

3. Final Group Assignment: 70%

A group assignment (3-4 people) of bibliographic research or small empirical research related to one of the modules of the course. A list of possible assignments is provided, while assignments proposed by students may also be made with the consent of the instructor who undertakes it.</td></tr>
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5. RECOMMENDED BIBLIOGRAPHY

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Γιαβρίμης Π., Παπάνης Ε., Νεοφώτιστος Β., & Βαλκάνος, Ε. (2010): Απόψεις εκπαιδευτικών για την εφαρμογή των Τ.Π.Ε. στην εκπαίδευση. Πρακτικά Εργασιών 7ου Πανελλήνιου Συνεδρίου «Οι Τ.Π.Ε. στην Εκπαίδευση», τόμος ΙΙ, σ. 633-640 Πανεπιστήμιο Πελοποννήσου, Κόρινθος, 23-26 Σεπτεμβρίου 2010. Διαθέσιμο στον ιστότοπο: http://korinthos.uop.gr/~hcicte10/proceedings/23.pdf

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Σχέδιο δράσης της Ευρωπαϊκής Επιτροπής για την ψηφιακή εκπαίδευση (στο https://eclass.uth.gr/modules/units/?course=PRE_P_112&id=972)

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Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining twenty-first century skills. In Assessment and teaching of 21st century skills (pp. 17-66). Springer, Dordrecht.

Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & education*, 59(2), 423-435.

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Παρασκευάς, Μ., «*Κοινωνία της Πληροφορίας*», Ενότητα 4.9, Κεφάλαιο 6, Ενότητες 7.1, 7.2 και 7.4.7