COURSE OUTLINE

(1) GENERAL

SCHOOL	HUMANITIES		
ACADEMIC UNIT	DEPARTMENT OF PRIMARY EDUCATION		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	ΕΓ0029	**SEMESTER**	5-8
COURSE TITLE	ICT APPLICATIONS IN EDUCATION (PRE)		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
	3	4
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special background, skills development, lab, elective
PREREQUISITE COURSES:	No
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	-

(2) LEARNING OUTCOMES

Learning outcomes

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

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The course's aim is to give students insights and perspectives on the following.
In terms of knowledge:
1. To know the categories and the wide range of interactive applications.
2. To know the software used to develop interactive multimedia applications.
3. To know the concepts associated with graphics animation.

4. To know the methodology of introducing animation in an application.
5. To know the basic programming concepts such as events, operators, variables, loops, and conditions and how they are implemented with object-oriented programming.
6. To know the methodology to use, modify and import audio files, music, pictures and video.
7. To know the methodology of displaying messages and counters on the screen.
In terms of their skills:
1. Be able to implement a program's flow using frames.
2. Be able to implement the steps from concept to implementation of an application. Flowcharts.
3. To understand the importance of the design and presentation of an application.
4. To understand the importance of the interface being designed in a manner easily understood by students.
In terms of their competences:
1. Be able to develop multimedia educational applications.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

The course aims at the following general competences:
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an interdisciplinary environment
- Production of new research ideas

(3) SYLLABUS

ICT educational applications arouse the interest of students, enrich and facilitate the learning process. In addition, these applications can encompass all the teaching subjects. It is therefore an important teaching tool, in which students must have a deeper understanding. The main objective of the course is through the development of simple applications, to explore ways in which they can be integrated into the teaching process. The subject is not considered exclusively from the perspective of the experts in the developments of such applications and/or from the perspective of teachers. Ways that students themselves can create educational applications are also considered. This is achieved by using object oriented point and click multimedia authoring tools, dispelling the notion that the development of computer applications requires special expertise and programming knowledge.

(4) TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face-to-face using PCs and/or laptops</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>Yes
ICT is the subject of the course</td></tr>
<tr><td>TEACHING METHODS
The manner and methods of teaching are described in detail.
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</td><td>
<table>
<tr><th>Activity</th><th>Semester workload</th></tr>
<tr><td>Lectures</td><td>10 hours</td></tr>
<tr><td>Lab exercises</td><td>30 hours</td></tr>
<tr><td>Independent study</td><td>30 hours</td></tr>
<tr><td>Application development</td><td>40 hours</td></tr>
<tr><td>Writing and presentation of a paper</td><td>10 hours</td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Course total</td><td>120 hours</td></tr>
</table>
</td></tr>
<tr><td>STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</td><td>Lab exercises during the course of the semester. Students (in groups) have to write and present a short paper discussing topics related to ICT applications in education.

Final exam. Students have to design and develop an application, using the software tools provided during the course. The application must have an educational use. Therefore, in addition of evaluating the application,
students are invited to present and support the ways their application has educational value (teaching framework, objectives, methodology, etc.) and to explain their choices and the methodology they used during its implementation.</td></tr>
</table>

(5) ATTACHED BIBLIOGRAPHY

Greek language

Micropoulos, T. A. (2006). *Ο υπολογιστής ως γνωστικό εργαλείο* [The computer as a learning
tool]. Αθήνα: Ελληνικά Γράμματα.

Related scientific journals

Computers and Education
International Journal of Game-Based Learning
Education and Information Technologies
Australasian Journal of Educational Technology
Journal of Educational Technology & Society