COURSE OUTLINE

247. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	**Department of History & Archaeology**		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**EDG702**	**SEMESTER**	**7th**
COURSE TITLE	Pervasive Computing and Applications in Cultural Heritage		

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**
THEORY	3	5
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*	SPECIALISED GENERAL KNOWLEDGE
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://eclass.upatras.gr/

248. 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*

Upon completion of this course, the student will be able to:

- Develop theoretical knowledge related to pervasive computing application.
- Develop practical knowledge related standards and best practices in developing pervasive computing applications.
- To understand the process of embracing user centered desing methodologies for creating interactive experiences within pervasive computing realms.
- To develop practical skills in elicitating user requirements and transform them into system specifications for ubiquitous computing (pervasive computing) realsm.
- To develop practical skills for combining Internet Of Things (IoT) technology within ubiquitous computing realms to create immersive interactive experiences and applications for the cultural heritage domain.

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…*
	…….

- Adapting to new situations
- Production of free, creative and inductive thinking
- Analysis
- Decision-making
- Team work
- Synthesis
- Evaluation

249. SYLLABUS

- Introduction to the subject of pervasive computing
- Theoretical foundations - pervasive computing

- Theoretical foundations – internet of things
- Case studys of pervasive computing in cultural heritage
- Designing interactive experiences in pervasive environments
- Analysis of requirements within IoT realms - Interactive courses
- Design and specification within IoT realms - Interactive courses
- Evaluation of pervasive computing applications
- Project presentation

250. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-Face, Classroom Teaching
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	**Asynchronous on-line learning platform (eclass).**

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

Activity	***Semester workload***
Lectures	39
Interactive Teaching (distant and in class)	30
Independent study and work on take-home questions	56
Course total	***125***

STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive,

- FInal Exam 60%
- Mid Term Exam 20%
- Project 20%

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.*	

251. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Book [68371436]Ƀ ɄɅɃ ũɅɹ ɀ ɀ ɹ ɇɄɆɀ Ƀ Ɇ ɇȼ Ɇ ȹɄ ȹɅɹ Ɇȼ Ɇ, Ǒəŭɞůɖ: ȺȾȹɃ Ɇȼ 1ɖ/2016, Ɇɡɔɔɟ ǓűǕɖ: Ⱦɋ ʔ Ɇɇɹ ʔ ɇȽʔ Ƀ Ɇ ɟ ɋ ɅɄ ʔ Ƀ Ʉ Ƀ Ɉ ȿ Ƀ Ɇ, ISBN: 9786188242357, ȹɃǓȡɏǕɖɠ (Ⱥəŭɧǖɖɠ): Ⱦ Ƀ Ʌ ū Ʉ ɇȼ Ɇ Ʉɋ ɹ ʔ ʔ ȼ Ɇ
- Book [50657185] Ⱦɜɖǖɏɠ ɇǕɞɜɞəɞɔǖɠ, Ǒəŭɞůɖ: 1ɖ/2015, Ɇɡɔɔɟ ǓűǕɖ: ȹǓɛɘǓɞɧɠ ũǓɓǓəɎɠ, ȡəɎůɖɠ ȾǓůǓ Ɏəɖɠ, Ūɤ ɛ Ɏɠ ɟ Ǖɖɖŭɖɛɐǖ ɖɠ ISBN: 978-960-578-007-4, ȹɃǓȡɏǕɖɠ (Ⱥəŭɧǖɖɠ): ȺȾȹɃ ɆȺɄɆ ʔ Ⱥɋ ʔ ɇȺɟ ʔ Ƀ ȿ Ƀ ũɋ ʔ ɄɃɄɋ ɇȽȾȼ ȾȺū ɹ ȿ ɹ ɄɃ Ɉ ɟ ȽȾȼ Ⱥɇ ɹ ȽɅȺɄ
- Pervasive Computing [electronic resource], Kenneth P. Fishkin / Bernt Schiele / Paddy Nixon / Aaron Quigley
- Pervasive Computing [electronic resource], Anthony LaMarca / Marc Langheinrich / Khai N. Truong