COURSE OUTLINE

247. GENERAL

SCHOOL	School of Humanities and Social Sciences		
ACADEMIC UNIT	Department of History & Archaeology		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**EDG602**	**SEMESTER**	**6th**
COURSE TITLE	Human Computer Interaction		

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 human computer interaction standards and best practices
- To understand the process of embracing user centered desing methodologies for creating interactive experiences.
- To develop practical skills in elicitating user requirements and transform them into system specifications.
- To develop practical skills for creating interactive user interfaces and applications for the cultural heritage domain.
- Students will be able to design and execute usability studies.
- Students will be able to analyze usability studies aiming to validate whether user requirements have been meet and propose design guideliness for improvements.

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

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

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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 Human Computer Communication
- Theoretical Foundations of Human-Computer Interaction (A)
  - *Analysis of human potential as a user, machine operator*
  - *Sensing systems, Motive systems, Information processing*
- Theoretical Foundations of Human-Computer Interaction (B)
  - *Memory, Empirical Models, Power Law of Practice,*
  - *Law of Hick Hyman, Law of Fitt*
- Technology and Interaction
  - *Empirical models with simple cognitive functions KLM*
  - *Typical cognitive functions: sensory perception, attention, memory*
  - *Conceptual Device Models, Social Models of Interaction*
  - *Methods of cognitive analysis (Activity theory, Distributed Cognition, Sociotechnical analysis)*
- Interaction devices
  - *Interactive devices, Input / output devices - Readability of texts*
  - *Interaction modes, Menu-forms, Language of command-natural language*
  - *Direct handling - virtual reality*
- Accessibility technology
  - *Interactive devices, Multimedia - Sound - Virtual reality*
  - *Interaction modes, Technology for people with disabilities*
- Designing Interactive Experiences
  - *Human-Center System Development Model, Design Methodologies*
  - *Interactive Systems Design Guidelines, Principles of Drawing Icons*
  - *Design of web interfaces*
- Analysis of Requirements - Interactive Courses
  - *How to measure success in design, Real-world restrictions*
  - *Standard User Interface Description, User Features, User Tasks*
- Design Rules – Usability and User Experience
  - *Transparency, Expected interface properties.*
  - *Consistency, Adaptability, Predictive User Navigation support*
  - *Simplicity, Content Layout*
  - *Feedback, Protection from dangerous actions of the user*
  - *Assistance, User Control*
  - *Data entry, Error messages*
- System specification for interactive systems
  - *UML diagrams (use cases, interaction diagrams)*
  - *State transition networks*
  - *User Action Notation (UAN)*

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, 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.*	• FInal Exam 60% • Mid Term Exam 20% • Exercises 20%	

251. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Book [12304]: Επικοινωνία ανθρώπου - υπολογιστή, 3ή Έκδοση, Dix Alan J.,Finlay Janet E.,Abowd Gregory D.,Beale Russell Λεπτομέρειες
- Book [12279101] ΑΛΛΗΛΕΠΙΔΡΑΣΗ ΑΝΘΡΩΠΟΥ - ΥΠΟΛΟΓΙΣΤΗ: ΑΡΧΕΣ,

ΜΕΘΟΔΟΙ ΚΑΙ ΠΑΡΑΔΕΙΓΜΑΤΑ, Έκδοση: 1η/2011

Συγγραφείς: ΠΑΝΑΓΙΩΤΗΣ ΚΟΥΤΣΑΜΠΑΣΗΣ ISBN: 978-960-461-439-4 (Εκδότης): ΕΚΔΟΣΕΙΣ ΚΛΕΙΔΑΡΙΘΜΟΣ ΕΠΕ

- Book [59366672]: ΕΙΣΑΓΩΓΗ ΣΤΗΝ ΑΛΛΗΛΕΠΙΔΡΑΣΗ ΑΝΘΡΩΠΟΥ-ΥΠΟΛΟΓΙΣΤΗ, ΝΙΚΟΛΑΟΣ ΑΒΟΥΡΗΣ, ΧΡΗΣΤΟΣ ΚΑΤΣΑΝΟΣ, ΝΙΚΟΛΑΟΣ ΤΣΕΛΙΟΣ, ΚΩΝΣΤΑΝΤΙΝΟΣ ΜΟΥΣΤΑΚΑΣ