COURSE OUTLINE

(1) GENERAL

SCHOOL			
ACADEMIC UNIT	**Interdisciplinary Graduate Programme in the BRAIN and MIND sciences**		
LEVEL OF STUDIES	7		
COURSE CODE	**CS-364**	SEMESTER	**Spring**
COURSE TITLE	Introduction to 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
lectures	4	6
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
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBSITE (URL)	https://www.csd.uoc.gr/~hy364/gr/index.php

(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*

1. Knowledge – Understanding: Having attended and successfully completed the course, students have acquired knowledge of the basic concepts and techniques needed to address issues affecting human–computer interaction.

2. Application: Having attended and successfully completed the course, students understand the importance of thorough analysis, design, implementation, and evaluation of user interfaces (UIs) for interactive applications, based on a systematic and holistic approach that takes into account the needs, abilities, and preferences of end users, as well as the goals of the application under development.

3. Analysis: Having attended and successfully completed the course, students have acquired both the necessary theoretical and technological background, as well as practical experience, in the effective gathering of requirements, prototype design, implementation, and evaluation of interfaces.

4. Synthesis: Having attended and successfully completed the course, students have understood the basic principles of interface design for applications and services, for the World Wide Web, and for mobile devices, and are able to develop a complete interactive prototype system.

5. Evaluation: Having attended and successfully completed the course, students are able to compare and select appropriate solutions during the design of an interactive system, as well as to evaluate the

usability and overall user experience of a functional prototype, both through the involvement of usability experts and end users.

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
……
Others…
…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Team work
- Production of new research ideas
- Project planning and management
- Criticism and self-criticism
- Working in an international environment
- Working in an interdisciplinary environment
- Production of free, creative and inductive thinking

(3) SYLLABUS

Human–Computer Interaction (HCI) is the interdisciplinary field concerned with the analysis, design, implementation, and evaluation of the interface of computer system applications with which the user can interact, as well as the issues that govern this interaction.
The main objectives of the course are:

- To introduce the basic concepts and analyze the issues involved in the process of Human–Computer Interaction.
- To highlight the importance of a systematic and comprehensive approach to the design of interactive systems through Human-Centered Design.
- To provide students attending the course with the opportunity to gain both theoretical knowledge and practical training.
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The syllabus (updated annually) covers topics related to the following indicative areas:

- Human–Computer Interaction: Overview of the field
- Development of interactive systems; Human-Centered Design
- Requirements analysis
- Basic principles of graphical user interface (GUI) design
- Visual design
- Prototype creation
- Web interface design
- Interface design for mobile devices
- Principles of interface evaluation
- Expert-based interface evaluation – heuristic evaluation
- User-based interface evaluation
- User experience and user experience design
- Modern trends and approaches in Human–Computer Interaction

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	• email • course website • electronic submission of exercises
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	52
Tutorials	0
Study	52
Exercises/labs	52
Final project	8
Exams	4
Course total	***168***

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.*	Class attendance/participation Exercises/projects Oral/written exams

(5) ATTACHED BIBLIOGRAPHY

- Nielsen J., Usability Engineering, Morgan Kaufmann, 1993.
- Krug, S. Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd Edition), New Riders, 2014.
- Williams, R. The Non-Designer's Design Book: Design and Typographic Principles for the Visual Novice. 4th ed. Peachpit Press, 2014.
- Hinman, R. The Mobile Frontier: a Guide for Designing Mobile Experiences. Brooklyn, NY: Rosenfeld Media, 2012