



Universitat de Lleida

DEGREE CURRICULUM

INTERACTION AND USABILITY

Coordination: ALBERTOS MARCO, FÉLIX

Academic year 2021-22

Subject's general information

Subject name	INTERACTION AND USABILITY			
Code	102371			
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's degree in Digital Interaction and Computing Techniques	1	COMMON	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRALAB	TEORIA	
	Number of credits	3	3	
	Number of groups	1	1	
Coordination	ALBERTOS MARCO, FÉLIX			
Department	COMPUTER SCIENCE AND INDUSTRIAL ENGINEERING			
Teaching load distribution between lectures and independent student work	40% lectures / 60% independent student work			
Important information on data processing	Consult this link for more information.			
Language	Castellano			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ALBERTOS MARCO, FÉLIX	felix.albertos@udl.cat	6	

Subject's extra information

Subject to be held during the second semester in the first course of the Degree in Digital Interaction and Computing Techniques.

It belongs to the Computer Science area, inside the "Basic Training" module.

Learning objectives

- Know the basic concepts related to the Human-Computer Interaction.
- Understand the importance of creating usable interfaces.
- Learn methodologies for the development of user-centred interactive applications.
- Establish the relationship with Software Engineering.
- Ability to identify and analyze the aspects related to the user experience in real examples.
- Be able to design the interfaces of an interactive system based on users' needs and the context of use.
- Know the main aspects of accessibility in ICT.

Competences

Basic competences:

B01. That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that imply knowledge coming from the vanguard of his/her field of study.

Transversal competences:

CT3. Acquire training in the use of new technologies and information and communication technologies.

CT5. Acquire essential notions of scientific thought.

General competences:

CG2. Design, develop, evaluate and guarantee the accessibility, ergonomics, usability and security of computer systems.

CG3. Use adequate hardware and software platforms to develop and execute interactive digital applications.

CG5. Know the basic subject areas and technologies needed to learn and develop new methods and technologies,

and those that help to adapt to new situations.

CG7. Solve problems through initiative, determination, independence and creativity.

CG8. Capacity for abstraction and critical, logical and mathematical reasoning.

Specific competences:

CE16. Capacity to design and evaluate person-computer interfaces that guarantee the usability of systems, services and computer applications.

CE17. Capacity to apply knowledge on design to propose and defend a design concept for an interactive system and use proper creative technologies to develop each project.

CE24. Capacity to understand the human factors involved in any interactive process between humans and technology, as well as being able to adequately apply them in the design of interactive products and services, and their interfaces.

Subject contents

- Introduction to the discipline of Human-Computer Interaction.
- Usability, Accessibility and User Experience.
- User-Centred Design Methodologies.
- Usability Engineering.
- Prototyping of user interfaces.
- Evaluation of the accessibility of user interfaces.

Methodology

The course is developed as follows:

- A theory group (aula) and one group for practices (praula) are established.
- In the theory group the contents are presented. Each session deals with a specific subject, with a maximum of 2 sessions.
- During the course assignments will be proposed.
- Two weeks are established for a professional and an international talks.
- In the praula group, a project is proposed to work with the contents presented in the aula group.

Development plan

Week	Aula	Praula
1	A0+A1	P0+P1
2	A2	P1
3	A3	P1+P2
4	A4	P2
5	A5	P3
6	Web Seminar	P3

7	A6-1	P3
8	A6-2	P3
9	Partial eval.	
10	A7-1	P3
11	A7-2	P4
12	CI	P4
13	A8-1	P5
14	A8-2	P5
15	CP	P6
16	Partial eval.	

Aula	
A0	Introduction
A1	Basics: Usability, Accessibility and User Experience
A2	Prototyping
A3	Interaction styles and paradigms
A4	User interface design
A5	User centred design
A6	Usability
A7	Accessibility
A8	The human factor
CI*	International talk
CP*	Professional talk

Praula	
P0	Project and groups
P1	Requirements analysis / Ethnographic
P2	Paper prototyping
P3	Wireframe
P4	Usability evaluation
P5	Accessibility evaluation
P6	Presentations

* Dates subject to changes

Evaluation

				Mandatory	Minimum	Rec.
Par.ev.	30%	50%	Par.ev. 1			
		50%	Par.ev 2	yes	5	yes
		20%	P1			yes
Group	55%	20%	P2			yes
				yes	5	

		40%	P3	yes	yes
		20%	P6		yes
Individual	15%	50%	P4		No
		50%	P5	No	No

EvaluationMark= Par.ev.*0,30 + GroupCal*0.55 + IndividualCal*0.15

Final mark (if minimums are met) = EvaluationMark

Final mark (if minimums are not met) = EvaluationMark (if EvaluationMark is less than 5) or 4.5 (if EvaluationMark is greater than or equal to 5).

Bibliography

- Alan Dix, Janet Finlay, Gregory D. Abowd, Russell Beale. Human-Computer Interaction, Prentice Hall, ISBN-13: 978-0-13-046109-4 (2004)
- Nielsen Norman group. <https://www.nngroup.com/>
- The World Wide Web. <http://www.w3.org/>