



Universitat de Lleida

DEGREE CURRICULUM

# INTERACTION AND USABILITY

Coordination: ALBERTOS MARCO, FÉLIX

Academic year 2018-19

Subject's general information

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

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
ALBERTOS MARCO, FÉLIX	felix@diei.udl.cat	8	
GRANOLLERS SALTIVERI, ANTONI	antoni.granollers@udl.cat	1	

## 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 two groups 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	P2
3	A3	P2+P3

4	A4	P3
5	A5	P4
6	A6-1	P4
7	A6-2	P4
8	CI	P4
9		
10	A7-1	P4
11	A7-2	
12		P5-1
13	A8-1	P5-2
14	A8-2	P5-2
15	CP	P6

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
P2	Ethnographic Analysis
P3	Paper prototyping
P4	Wireframe
P5-1	Heuristic
P5-2	Accessibility
P6	Presentations
* Dates subject to changes	

## Evaluation

		Mandatory	Recoverable
Partial 1	20%	Si	Si

Partial 2	20%			Si	Si
		20%	P2	Si	Si (80%)
Group	40%	20%	P3	Si	Si (80%)
		40%	P4	Si	Si (80%)
		20%	P6	Si	Si (80%)
		20%	Assignment	No	No
Individual	20%	40%	P5-1	SI	Si (80%)
		40%	P5-2	SI	Si (80%)

## 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/>