



Universitat de Lleida

DEGREE CURRICULUM  
**USER-CENTERED DESIGN**

Coordination: GRANOLLERS SALTIVERI, ANTONI

Academic year 2021-22

## Subject's general information

<b>Subject name</b>	USER-CENTERED DESIGN			
<b>Code</b>	102026			
<b>Semester</b>	1st Q(SEMESTER) CONTINUED EVALUATION			
<b>Typology</b>	<b>Degree</b>	<b>Course</b>	<b>Character</b>	<b>Modality</b>
	Bachelor's Degree in Computer Engineering	4	COMPULSORY	Attendance-based
	Bachelor's Degree in Computer Engineering	4	OPTIONAL	Attendance-based
<b>Course number of credits (ECTS)</b>	6			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRALAB		TEORIA
	<b>Number of credits</b>	3		3
	<b>Number of groups</b>	1		1
<b>Coordination</b>	GRANOLLERS SALTIVERI, ANTONI			
<b>Department</b>	COMPUTER SCIENCE AND INDUSTRIAL ENGINEERING			
<b>Teaching load distribution between lectures and independent student work</b>	6 ECTS = 25x6 = 150 hours 40% -> 60 classroom hours 60% -> 90 hours of autonomous student work			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			
<b>Language</b>	English			
<b>Distribution of credits</b>	All the subject is done by one teacher			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
GIL IRANZO, ROSA MARÍA	rosamaria.gil@udl.cat	3	
GRANOLLERS SALTIVERI, ANTONI	toni.granollers@udl.cat	3	

## Subject's extra information

This course, the subject is part of the **FHICT Minor Global Acting in ICT** – Innovation in International Learning Spaces, international minor lead by University of Fontys (The Netherlands): <https://www.keuzegidsfontysict.nl/en/minors/minors-within-hbo-ict-bachelor-education/global-acting-in-it>

## Learning objectives

- Continuation and achievement of the knowledge acquired on "Human Computer Interaction" subject (2nd course)
- Deeping on the main concepts and methodologies that establish the User Centered Design methodology into Human-Computer Interaction discipline.
- Special emphasis on the main techniques that enable system designers to follow UCD methodologies for developing interactive systems and User Interfaces
- The subject will be mainly PRACTICAL

## Competences

### Strategic Competences of the UdL

- **CT2.** Mastering a foreign language, especially English.
- **CT3.** Training Experience in the use of the new technologies and the information and communication technologies.

### Transversal skills

- **EPS11.** Ability to understand the user's needs expressed in non-technical language.

### Skills training module specific technology. Information Technology

- **GII-TI1.** Ability to understand the environment of an organization and its needs in the Information and Communications Technology context.
- **GII-TI3.** Ability to use user-centric methodologies and development organization, assessment and management based applications and Information Technology to ensure its accessibility, ergonomics and usability.
- **GII-TI5.** Ability to select, deploy, integrate and manage Information Systems that meet the needs of the organization, with the criteria identified cost and quality.
- **GII-TI6.** Ability to conceive systems, applications and network technologies based services, including Internet, web, e-commerce, multimedia, interactive services and mobile computing.

## Subject contents

- Introduction
- Participatory techniques for requirements
- User profiles
- Information Architecture
- Interaction Patterns
- Multiculturality & Internacionalitization
- User eXperience (UX) Design
- Usability evaluation:
  - experts evaluation
  - evaluation with users
  - professional reports

## Methodology

The course is developed as follows:

- There are **no middle or small groups**, that means that all the classes are carried on with the same students.
- The course is divided in a series of topics related with UCD techniques.
- Each topic will be presented by the teacher, then the students (individually or in pairs) will work on this technique.
- At the end of every topic every student or pair will present to the rest what they have done, enabling a discussion.
- Every topic will spend 3-4 two-hour classes (see the schedule)
- A project idea will be delivered at the beginning to provide the same scenario to work on.

## Development plan

Grau en Enginyeria Informàtica (UdL) course 2020-21 User Centered Design			
week 1	22 Sep	Explanation of the subject and UCD review UX readings assignments Groups formation - Design Thinking, DT (concept sheets) Interviews & surveys	VIRTUAL
	23 Sep	Justinmind explanation DT+UP+S doubts	
week 2	29 Sep	<i>Local Party</i>	
	30 Sep	Design Thinking, DT User Profiles, UP (personas) Scenarios, S (user stories)	
week 3	06 Oct	Information Architecture, IA (Card Sorting)	VIRTUAL
	07 Oct	UX readings presentation - Prototype development with Justinmind	
week 4	13 Oct	UX readings presentation - Prototype development with Justinmind	VIRTUAL
	14 Oct	UX readings presentation - Prototype development with Justinmind User Profiles + Scenarios delivery	
week 5	20 Oct	UX readings presentation - Prototype development with Justinmind IA doubts	VIRTUAL
	21 Oct	(presentation + delivery) Information Architecture: Presentation of card sorting results	
week 6	27 Oct	FINISH the Prototype development with Justinmind	VIRTUAL
	28 Oct	(presentation + delivery) Prototype alfa version Correspondence with user profiles, Scenarios & IA	
week 7	03 Nov	group-crossed Expert Evaluation preparation and development	VIRTUAL
	04 Nov	group-crossed Expert Evaluation	
week 8	10 Nov	(presentation + delivery) 1st system evaluation: Expert Evaluation Evaluator's feedback to the designers --> modify your prototypes	VIRTUAL
	11 Nov	Improving the prototypes	
week 9	<i>Week of Evaluation Activities (NO partial exam in this subject)</i>		
week 10	24 Nov	How to prepare the usability reports: Common Industry Format (CIF) for usability test reports Time for user tests	VIRTUAL
	25 Nov	Evaluation with Users: practical session in UsabiliLAB Prototype version 2 delivery	
week 11	01 Dec	Time for user tests	VIRTUAL
	02 Dec	Time for user tests	
week 12	08 Dec		
	09 Dec	Time for user tests	

week 13	15 Dec	Multiculturality & Internationalization - Evaluations with disabled people Time for user tests	VIRTUAL
	16 Dec	Time for user tests	
week 14	22 Dec	CIF Report delivery	VIRTUAL
	23 Dec		
week 15	12 Jan	Final PROJECT PRESENTATIONS	VIRTUAL
	13 Jan	Final PROJECT PRESENTATIONS	

## Evaluation

Group Activities	90%	Act1	10%	User Profiles (personas) Scenarios (user stories)
		Act2	10%	Information Architecture
		Act3	20%	Prototype (version 1.0)
		Act4	10%	Expert Evaluation
		Act5	10%	Prototype improved (v 2.0)
		Act6	30%	Evaluation with Users
		Act7	10%	FINAL PROJECT PRESENTATION
	10%			UX readings
FINAL MARK= Group Activities * 0.9 + READINGS * 0.1				

IMPORTANT:

- **ALL activities are mandatory**
- Every activity or exam which mark is below 4 must be recovered
  - 3.9 is not 4
  - Not Presented = 0
- **For passing the subject ==> FINAL MARK >= 5**
  - 4.9 is not 5

Then, for passing the course **ALL the activities must reach 4 points.**

**Classes are "face-to-face", if attendance in class is lower than 80%, final mark will be reduced 20%**

Suspended activities may be resubmitted until the last day of "tutorials week". **In this case, the mark for every resubmitted activity will be 80% of its final review**

## Bibliography

- **Webs**
  - <http://www.interaction-design.org/books/hci.html>
  - <http://www.grihotools.udl.cat/mpiu>
- **Books**
  - **Understanding Your Users. A practical guide to user requirements** by C. Courage & K. Baxter. Elsevier (2005)

- **Human-Computer Interaction** (3rd Edition) by Alan Dix, Janet E. Finlay, Gregory D. Abowd and Russell Beale (Dec 20, 2003)
  - **Designing Interactions** by Bill Moggridge (October 1, 2007. ISBN-10: 0262134748)
  - **100 Things Every Designer Needs to Know About People** (Voices That Matter) by Susan Weinschenk (April 24, 2011). ISBN-10: 0321767535
  - **Designing Interfaces** by Jenifer Tidwell (January 6, 2011). ISBN-10: 1449379702
  - **User-Centered Design: A Developer's Guide to Building User-Friendly Applications** by Travis Lowdermilk (April 11, 2013)
- **Web articles**
    - A large web articles on: <https://delicious.com/tgranollers/GEInformàtica-UCD>