



Universitat de Lleida

DEGREE CURRICULUM

USER-CENTERED DESIGN

Coordination: GRANOLLERS SALTIVERI, ANTONI

Academic year 2023-24

Subject's general information

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

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
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GRANOLLERS SALTIVERI, ANTONI	toni.granollers@udl.cat	5,2	Contact to toni.granollers@udl.cat

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 & Internacionalization
- 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) and Minor Global Acting in ICT course 2023-24 User Centered Design	
week 1 25-29 SET	Groups knowledge and organization define your system based on IMW (Intelligent Management of Water) personas, users profiles and scenarios Prototypes: Justinmind Software
week 2 2-6 OCT	Develop interactive prototypes and Start evaluations Intergroups evaluations User tests
Week 3 9-13 OCT	user tests Common Industry Format (CIF) presentation of final results

Evaluation

		Act1	10%	User Profiles (personas) Scenarios (user stories)
		Act2	10%	Information Architecture
		Act3	20%	Prototype (version 1.0)

Group Activities	90%	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/mpuia>
- **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>