



Universitat de Lleida

DEGREE CURRICULUM

USER EXPERIENCE

Coordination: SAYAGO BARRANTES, SERGIO

Academic year 2020-21

Subject's general information

Subject name	USER EXPERIENCE			
Code	102383			
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's degree in Digital Interaction and Computing Techniques	2	COMPULSORY	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	SAYAGO BARRANTES, SERGIO			
Department	COMPUTER SCIENCE AND INDUSTRIAL ENGINEERING			
Teaching load distribution between lectures and independent student work	<p>According to the academic framework of bachelor's degrees of the EPS:</p> <ul style="list-style-type: none"> - 1 ECTS = 25 hours; 6 ECTS = 150 hours - 40% (60h) of in-class work and 60% (90h) of autonomous work <p>This distribution of hours in this course is as follows:</p> <ul style="list-style-type: none"> - In-class work: theory (28h) + laboratories (28h) = 56h + 4 hours of exams = 60h - Independent student's work: project (45h) + research papers I and II (20h) + study (25h) = 90h 			
Important information on data processing	Consult this link for more information.			
Language	English, Catalan and Spanish			
Distribution of credits	See type of activity, credits, and groups			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
SAYAGO BARRANTES, SERGIO	sergio.sayago@udl.cat	6	

Subject's extra information

User Experience deals with instrumental and non-instrumental aspects of technology use. User Experience is a mandatory course of 6 ECTS. User Experience is held during the second semester of the second year of the Bachelor's degree in Digital Interaction and Computing Techniques (GTIDIC).

GTIDIC aims to train qualified professionals in the computing field with a very practical side, giving special emphasis to the design and implementation of interactive applications. The graduates will acquire solid programming knowledge, focusing on mobile and web applications, Internet technologies, administration tools and security systems, and interface design and development.

User Experience follows up on Interaction and Usability, which provides students with an introduction to Human-Computer Interaction. The main aim of User Experience is to train qualified professionals in the field of UX Research. To achieve this objective, this course is conducted within the context of an agile software development integrated project, which is carried out in four courses: Innovation, Mobile Development, and Specification and Analysis of Interactive Systems.

Learning objectives

1. To consolidate the development of interactive systems by following a User Centred Design methodology
2. To be able to apply techniques of participatory design at early phases of systems development
3. To understand and create user profiles related to an interactive system
4. To design the Information Architecture of an interactive system
5. To be able to apply interaction patterns while designing user interfaces
6. To be able to evaluate the usability and user experience of interactive systems

Significant competences

According to the table of competences of the GTIDIC (<https://ja.cat/zvyK4>):

Basic competences

CB3. That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.

Transversal competences

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

General competences

CG1. Conceive, plan and developed projects in the field of ICT

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

CG4. Use software engineering methods to develop interactive ICT applications.

CG9. Capacity for being analytic and synthetic.

Specific competences

CE3. Basic knowledge of the use and programming of computers, operating systems and databases, and their use in the development of interactive applications.

CE6. Capacity to design, develop, select and evaluate applications and computer systems, ensuring its reliability, security and quality.

CE10. Capacity to analyse, design, build and maintain safe and efficient applications, choosing the most suitable paradigm and programming languages.

CE13. Knowledge and application of the characteristics, functionalities and structure of the databases, that allow their suitable use, and the design and the analysis and implementation of interactive applications based on them.

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.

CE25. Capacity to analyse, organize, label and visualize the structure that defines the interaction with digital contents, by applying information architecture methods, techniques and tools that facilitate accessibility.

CE26. Capacity to apply universal design and accessibility principles and standards to design experiences that guarantee equal opportunity for users.

Subject contents

- Participatory techniques
- User profiles
- Interactive prototyping
- Fundamentals of Information Architecture
- Interaction patterns

Methodology

Methodology	Theory (synchronous)	Theory (asynchronous)	Laboratories	Independent student's work
Lectures	X			
Integrated project in laboratories			X	
Readings (research papers)		X		X
Integrated project (at home)				X
Research papers		X		X
Study (exams)				X

Academic course 20/21, theory and laboratories are both virtual. The sessions will be conducted via the videoconference system of the virtual campus.

Theory

The plenary sessions will be either synchronous or asynchronous (see [timetable](#)). The synchronous sessions will be a discussion of the topics of the module. The asynchronous sessions will be devoted to the research papers. The students will follow independently the instructions provided by the lecturers, which will be available at the Virtual Campus.

Research papers

Research papers are short (2K words, references included) technical documents related to any subject of the course. Research papers can be user studies or literature reviews.

Integrated project

The laboratories are carried out within the context of an integrated project. This project is conducted in four courses: Innovation, Mobile Development, Specification and Analysis of Interactive Systems, and this course.

The integrated project aims to have students work in an agile software development project, which is designed to set up an start-up by designing and developing an mobile app. The project also aims to enable students to develop important skills and competences, such as being able to work in teams, present ideas in public, and team organization.

Development plan

Week	Theory (synchronous)	Laboratories (virtual)
1	Presentation T1. Relevance of UX	P1. Sprint / Phase 0. Definition, user profiles, co-design
2	T2. Inclusion. T3. Data gathering and analysis; ethical aspects	P1 (cont.)
3	T3 (cont.)	P1 (cont.) + submission of definition and user profiles
4	T4. UX design aspects	P1 (cont.) + co-design of some parts of the mobile app
5	T4 (cont.)	No class
6	T4 (cont.)	P1 (cont.) + submission of co-design
7	No class	P2. Sprint / Phase 0. Information Architecture of the mobile app
8	P2 (cont.)	P2 (cont.) and submission
9	Exams	
10	T5. Prototype	P3. Prototype, co-design and evaluation - Sprint 1
11	T6. Evaluation	No class
12	T6 (cont.)	P3 (cont.) + Sprint 2
13	T7. UX in companies	P3 (cont.)
14	Invited speaker	P3 (cont.) + Sprint 3
15	P4 (cont.)	P3 (cont.)
16	Exams	
17	Exams	
18	Revisions	
19	Retakes	

The development plan of the integrated project is available at the Campus Virtual.

Evaluation

The evaluation assessment and their relationship with the learning objectives and specific competences are listed below:

Instrument	Learning objectives	Specific competences
Integrated project	All	6-16-17-25-26
Exams	All	6-16-17-25-26
Research papers	It depends on the paper	It depends on the paper

Continuous evaluation - all activities are mandatory
<p>Final Grade (FG) = $Laboratories * 0.3 + Integrated_Project * 0.2 + Theory * 0.5 \geq 5$</p> <ul style="list-style-type: none"> • <i>Laboratories</i> (30% of the FG) ≥ 5 <ul style="list-style-type: none"> ◦ <u>P1</u> (10%) + <u>P2</u> (10%) + <u>P3</u> (10%). In groups of 3-4 students. The same groups as those of the integrated project • <i>Integrated project</i> (20%) ≥ 5 See below • <i>Theory</i> (50% of the FG) ≥ 5 <ul style="list-style-type: none"> ◦ <u>First exam</u> (15%). 2 h. ◦ <u>Second exam</u> (15%). 2 h. ◦ <u>First research paper</u> (10%) ◦ <u>Second research paper</u> (10%)
Retakes - minimum grade = 5, maximum grade = 7.5
<ul style="list-style-type: none"> • Retakes are not for getting a higher FG • If <i>Laboratories</i> < 5: Submission of all labs • If <i>Theory</i> < 5: <ul style="list-style-type: none"> ◦ <u>Final exam</u>. 2 hours. ◦ <u>Final research paper</u> (I and II) • If <i>Integrated project</i> < 5: <u>presentation</u>

Integrated project

The integrated project corresponds to 20% of the FG. It consists of two parts:

- presentation. Public presentation. 10%
- evolution and management. We will assess the progress of the teams and the use they make of the tools provided in the project. 10%

The grade of the integrated project will be the same for all the courses.

At the end of the course, the students will be provided with a summary report with information regarding their progress in the project.

If a student is not enrolled in all courses, the student will be evaluated according to his or her work in the courses in which s/he is enrolled. Thus, it is possible to carry out the project without being enrolled in the four courses.

Pandemy COVID-19

The first and second exam will be conducted in class. If during the academic course 20/21 the authorities of the University of Lleida decide that the exams must go virtual, the details of the first and second exam of this module will be communicated through the virtual campus. The weight of the assessment activities will not change.

Bibliography

[Contextual design : design for life / Karen Holtzblatt, Hugh Beyer](#)

[The Design of everyday things / Don Norman](#)

[Designing interactions / Bill Moggridge](#)

[Designing the user interface : strategies for effective human-computer interaction / Shneiderman, Plaisant, Cohen, Jacobs, Elmqvist](#)

[Experience design : technology for all the right reasons / Marc Hassenzahl](#)

[The human-computer interaction handbook : fundamentals, evolving technologies, and emerging applications / edited by Julie A. Jacko](#)

[Interaction design : beyond human-computer interaction / Helen Sharp, Jennifer Preece, and Yvonne Rogers](#)

[Studies in conversational UX design / de Robert J. Moore, Margaret H. Szymanski, Raphael Arar, Guang-Jie Ren](#)

[The Conversational Interface Talking to Smart Devices Michael McTear, Zoraida Callejas, David Griol](#)

[Wired for speech : how voice activates and advances the human-computer relationship / Clifford Nass and Scott Brave](#)

[Research methods in human-computer interaction / Jonathan Lazar, Jinjuan Heidi Feng, Harry Hochheiser](#)

[Information architecture : for the web and beyond / Louis Rosenfeld, Peter Morville, and Jorge Arango](#)