



Universitat de Lleida

DEGREE CURRICULUM

DIGITAL INTERACTION

Coordination: SCHAPER , MARIE-MONIQUE ANASTASIA

Academic year 2023-24

Subject's general information

Subject name	DIGITAL INTERACTION			
Code	102188			
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Digital Design and Creative Tehcnologies	2	COMPULSORY	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRAULA	TEORIA	
	Number of credits	3	3	
	Number of groups	2	1	
Coordination	SCHAPER , MARIE-MONIQUE ANASTASIA			
Department	COMPUTER ENGINEERING AND DIGITAL DESIGN			
Teaching load distribution between lectures and independent student work	60H. teaching classes. 90H. Personal work			
Important information on data processing	Consult this link for more information.			
Language	Catalan, Spanish, English			
Distribution of credits	3 theoretical credits 3 practical credits			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
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VASILE , FRANCESCA	francesca.vasile@udl.cat	6	

Subject's extra information

VARIATIONS MAY OCCUR IN THE FIELD OF CONTENTS, CALENDARS AND EVALUATIONS

Learning objectives

- Consolidate the development of interactive systems following the User Centered Design (DCU) methodologies.
- Application of Participatory Techniques in the initial phases of developing an interactive system.
- Understand and develop the user profiles associated with a certain system.
- Develop the Information Architecture of an interactive and / or information system.
- Know and apply interaction patterns when designing user interfaces.
- Evaluate the usability and the degree of user experience of an interactive system.

Competences

Basic Competences (CB)

CB1. Demonstrate to possess and understand knowledge in their 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 from the cutting edge of your field of study.

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

General Competences (GB)

CG2. Ability to solve communication problems, knowing and identifying the different phases of digital design.

CG3. Ability to respond to contexts typical of digital environments, recognizing physical, cognitive, cultural and social factors that frame design decisions.

CG5. Ability to design and evaluate systems that guarantee accessibility and usability.

CG6. Understand, understand, know how to interact and satisfy the needs of new customers in digital contexts.

Specific Competences (CE)

CE8. Ability to create and exploit virtual worlds, and to create, manage and distribute multimedia content.

CE10. Prototype an interactive system from a design.

CE13. Acquire aesthetic and artistic sensitivity to make decisions during the creative process, demonstrating skill in handling the specific techniques and procedures of digital art.

Transversal Competences (CT)

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

CT6. Apply the gender perspective to the tasks of the professional field.

Subject contents

BLOCK 1: DIGITAL INTERACTION IN DESIGN AND BUSINESS.

1-The user-centered design.

2- User profiles, how to create profiles and user groups.

3- Case studies.

4- Art of selling a project.

6- The information architecture.

5- How to face a real project.

BLOCK 2. DIGITAL INTERACTION IN PUBLIC SPACES

1- Co-Creation and participatory design process

2- Methods to co-design with diverse users

3- Principles of "Embodied Interaction"

4- Design and Prototyping of Interactive Experiences

5- Ethics and informed consent

Methodology

The course is organized into classes where the technical contents of the subject are presented. In these sessions, the techniques and methods that are applied in the creation processes are presented. In addition, practical projects will be carried out with the objective that students assimilate and verify the knowledge applicable to graphic and artistic expression, as follows

- Theoretical exposition of the teachers through audiovisual support and work proposals according to the thematic blocks to be developed.
- Oral projection of the students of what they are developing.
- Discussions and reflections on the analytical observation of the development of the user profiles projects.
- Development of a business project and presentation to a public call.
- Reflections and debates around interactive art.
- Deenvolupament of an interactive artistic project.
- Continuous monitoring in group or individually in the workplace or tutorial spaces.
- Control of attendance in the classroom, as well as in the delivery of chronologically scheduled work.

SOFTWARE

Touchdesigner

Adobe Indesign

Adobe XD

Figma

Adobe Premiere

Adobe Photoshop

Adobe Illustrator

INTERACTIVE TOOLS

Makey Makey

TouchBoard

Micro:bit

Development plan

The classes have a very practical orientation and are based on a theoretical framework. There will be outings outside the classroom, debates and presentations of the work, all focused on carrying out practices to achieve the necessary skills to overcome the objectives of the subject.

The subject is divided into 2 large blocks.

1. INTERACTIVE DESIGN

2. DIGITAL INTERACTION IN PUBLIC SPACES

<i>Week</i>	<i>Description</i>	<i>Activity</i>
S1 Francesca	<i>Presentation of the course</i> <i>User-centered design</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>Presentation of the subject and objectives.</i> <i>User-centered design.</i> 2nd session. (2h). SEMINAR G1: <i>Project workshop</i> 2nd session. (2h). SEMINAR G2: <i>Project workshop</i>
S2 Francesca	<i>Design Thinking</i> <i>Digital design as problem/need resolution</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>Design thinking</i> 2nd session. (2h). SEMINAR G1: <i>Project workshop</i> 2nd session. (2h). SEMINAR G2: <i>Project workshop</i>

S3 Marie	Co-Creation and participatory design process	1st session. (2h). THEORETICAL FRAMEWORK: <i>Co-Creation and participatory design process</i> 2nd session. (2h). SEMINAR G1: <i>Develop a protocol for participatory design sessions</i> 2nd session. (2h). SEMINAR G2: <i>Develop a protocol for participatory design sessions</i>
S4 Marie + guest professor	<i>Co-design methods with diverse users (children, older people, users with special needs)</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>Methods to co-design with diverse users</i> 2nd session. (2h). SEMINAR G1: <i>Developmentally situated design cards</i> 2nd session. (2h). SEMINAR G2: <i>Developmentally situated design cards</i>
S5 Francesca	<i>How to carry out a digital interaction project</i> <i>Design and execution by phases.</i> <i>Validation study with users</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>How to carry out a digital interaction project</i> 2nd session. (2h). PRÁCTICAS G1: <i>Project workshop</i> 2nd session. (2h). PRÁCTICAS G2: <i>Project workshop</i>
S6 Marie	Embodied Interaction Design Interactive Experiences for public spaces (Part 1)	1st session. (2h). THEORETICAL FRAMEWORK: Embodied Interaction Design Interactive Experiences for public spaces 2nd session. (2h). Seminar G1: FUBIMethod 2nd session. (2h). Seminar G2: FUBIMethod
S7 Francesca	<i>Presentation 1 phase of the projects</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>Presentation 1 phase of the projects</i>
S8 Marie	Embodied Interaction Design Interactive Experiences for public spaces (Part 2)	1st session. (2h). THEORETICAL FRAMEWORK: <i>Tools for prototyping interactive experiences</i> 2nd session. (2h). SEMINAR G1: <i>Exercices with Wizard of Oz technique</i> 2nd session. (2h). SEMINAR G2: <i>Exercices with Wizard of Oz technique</i>
S9	<i>Partial exams</i>	

S10 Francesca	<i>Test and validation with users</i> <i>Development of the second phase of the project</i>	2nd session. (2h). SEMINAR G1: <i>Interactive art</i> 2nd session. (2h). SEMINAR G2: <i>El arte Interactive art</i>
S11 Marie	<i>Ethics and informed consent</i>	1st session. (2h). THEORETICAL FRAMEWORK: <i>Ethics and informed consent</i> 2nd session. (2h). SEMINAR G1: <i>Creation of informed consent</i> 2nd session. (2h). SEMINAR G2: <i>Creation of informed consent</i>
S12 Francesca	<i>How to visually present a digital interaction project.</i> <i>Design and strategies.</i> <i>Financing possibility</i>	1a sessi3n. (2h). THEORETICAL FRAMEWORK: <i>How to visually present a digital interaction project.</i>
S13 Francesca	<i>Project promotion and documentation</i>	1st sessi3n. (2h). THEORETICAL FRAMEWORK: <i>Project promotion and documentation</i> 2nd sessi3n. (2h). SEMINAR G1: <i>Advice on work, development of the final project.</i> 2nd sessi3n. (2h). SEMINAR G2: <i>Advice on work, development of the final project.</i>
S14 Francesca	<i>The art of selling a project</i>	1st sessi3n. (2h). THEORETICAL FRAMEWORK: <i>The art of selling a project</i> 2nd sessi3n. (2h). SEMINAR G1: <i>Advice on work, development of the final project.</i> 2nd sessi3n. (2h). SEMINAR G2: <i>Advice on work, development of the final project.</i>
S15 Both professors	<i>Exhibition of practical work</i>	1st session. (2h): <i>Project exhibition.</i> 2nd session. (2h): <i>Project exhibition.</i> 2nd session. (2h): <i>Project exhibition.</i>
S16	<i>Final Exam</i>	Final exam
S18	<i>Tutorials</i>	<i>Tutorials at the request of students.</i>
S19	Resitting exams	<i>Carrying out recovery exams</i>

*During the theoretical classes, students will have to take notes on the content that will be presented in the classroom. The teacher will deliver and post some materials displayed in the classroom on the virtual

campus, but it is the responsibility of the students to do the readings and take class notes.

Evaluation

MINIMUM NOTE* In order to average the subject exam (FP) with the practical block, it is necessary to obtain a minimum mark of 5 in the written tests (FP). If this minimum mark is not obtained, the course will be NOT **EXCEEDED** and the recovery exam must be taken.

FINAL_GRADE (PF < 5*) = 30% PF + 20% PRA1 + 15% PRA2 + 35 PRA 3.

In order to pass the course, the FINAL_GRADE must be equal or higher than 5.

In case of not having passed the course, it will be possible to attend the recovery. In this case the Final_Note will be calculated as follows:

RECOVERY_NOTE: Exam 50% (Minimum mark 5. If the minimum mark is 5, the practices will not be taken into account and the course will be failed with the mark of the recovery exam) + Practices = 50% (in case of passing the 5 in the exam).

ACR.	Evaluation Activities	Percentage	Min. Grade	In Group	Mandatory	Recuperable
PF	Final Exam	30%	5*	No	Yes	Yes
PRA1	Practice Block 1 AI	20%	No	dual	Yes	No
PRA2	Practice block 2 Public Space	20%	No	dual	Yes	No
PRA3	Practice block 3 Interactive campaign	30%	No	dual	Yes	Yes

Bibliography

Recommended reading:

Bødker, S., Dindler, C., Iversen, O. S., & Smith, R. C. (2022). What Is Participatory Design?. In *Participatory Design*. Cham: Springer International Publishing

Bianchi, S. and Verhagen, E. (2016). *PRACTICABLE, from participation to interaction in contemporary art*. London. The MIT Press. Cambridge Massachussets.

Brassel, C. (2012). *Las mejores técnicas para hablar en público*. Debolsillo.

Ciceron, M. T. (2014). *El orador*. Gredos.

Crespo, J.L. (2013). *Estéticas del Media Art*. Cuenca: Eumed.net

CAMPBELL, J. (2000). "Diálogos ilusorios: el control y las opciones en el arte interactivo". *Leonardo*, vol. 33, 2.

Dourish, P. (2001). *Where the action is: the foundations of embodied interaction*. MIT press.

Isaacson, W. (2011). *Steve Jobs: La Biografía*. Little Brown.

Krug S. (2015). *Don't make me think. No Me Hagas Pensar. Actualización*. Anaya.

Lorés, J. y otros (-). *Introducción a la Interacción Persona-Ordenador*.

Molina, A y Kepa, L. (2000). *Futuros emergentes, Arte interactividad y nuevos medios*. Valencia: Diputació de València. Institut Alfons el Magnànim.

Moreno, A. y Corcoles, S. (2017). *Aprende Arduino en un fin de semana*. Editorial Independiente.

Munari, B. (1998). *Fantasía: Invención, creatividad e imaginación en las comunicaciones visuales*.

Unger, Russ and Chandler, Carolyn (2012). *A Project Guide to UX Design (Voices That Matter)*.

Schopenhauer, A. (2011). *El arte de tener la razón*. Nueva biblioteca EDAF.

Tutorials about DCU:

Curs Toni Granollers: <https://mpiua.invid.udl.cat/>

Diseño de producto digital: Ian Spalter 2019 (Netflix)

Tutorial iniciació Touchdesigner. <https://www.youtube.com/watch?v=v6DwHEVWkkl&t=1008s>