Universidad Zaragoza

Academic Year/course: 2023/24

30258 - "User-Centred Design; Design for Multimedia"

Syllabus Information

Academic year: 2023/24
Subject: 30258 - "User-Centred Design; Design for Multimedia"
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
326 - Escuela Universitaria Politécnica de Teruel
Degree: 439 - Bachelor's Degree in Informatics Engineering
443 - Bachelor's Degree in Informatics Engineering
ECTS: 6.0
Year: 4
Semester: Second semester
Subject type:
Module:

1. General information

After having taken a first basic subject in Human-Computer Interaction in which they have learned to design interfaces for small applications, in this course students will learn the technologies related to user-centred design (UCD) and user experience (UX), including those that require accessible interfaces. They will also be able to integrate different types of information and multimedia elements into the interfaces.

These approaches and objectives are aligned with some of the Sustainable Development Goals, SDGs, of the Agenda 2030 (https://www.un.org/sustainabledevelopment/es/) and certain specific targets, such that the acquisition of the learning results of the subject provides training and competence to the student to contribute to some extent to the achievement of targets 10.2 and 7.3 of Goal 10, and target 9.4 of Goal 5.

2. Learning results

In order to pass this subject, the students shall demonstrate they have acquired the following results:

- Know the different user-centred methodologies for the development, evaluation and management of multimedia and web applications and systems that ensure accessibility and usability of the systems.
- Know how to decide the most appropriate set of DCU methods for a given problem and solve it.
- Know the different emerging interaction paradigms to be able to select the most appropriate interface for a specific problem and domain.
- Must be able to implement different solutions based on different interaction paradigms for a given problem.
- Must be able to conceive, design and build multimedia applications and to decide which multimedia tool is most suitable for a given job.
- Must be able to advise on web-based multimedia applications and services based on specific requirements.

3. Syllabus

- User-centred design model. Fundamentals of User-Centred Design
- User-centred design methodologies and techniques
- Design principles for the creation of web and multimedia systems.
- Player-based design. Accessibility.
- Multimedia elements. Static content: text, images and graphics. Compression, formats and tools for editing.
- Multimedia elements. Dynamic content: audio, video and animations. Compression, formats and tools for editing.
- Web usability and multimedia. User Experience Evaluation.
- Advanced interfaces: ubiquitous, tangible, natural, sensory, multimodal interfaces

- Applications. Case studies.

4. Academic activities

- In the classes taught in the classroom, the syllabus of the subject will be developed, including master classes of theory (30 hours) in which student participation will be encouraged, and problem solving (15 hours) applying the concepts and techniques presented in theory, the application of good practices and case analysis.
- In the computer-based practical classes (15 hours) the student must carry out the previously programmed activities (use cases, practical exercises), both individually and in teams.
- Personal study, project development, generation of reports associated with practical work (84 hours) Assessment (6 hours).

5. Assessment system

Students will demonstrate that they have achieved the learning results through the following activities of continuous assessment:

- Theoretical work (development of topics, exercises, tests, etc.): 30%.

- Practical work: individual (use of tools, small programs, etc.) and group (design and development of a project): 70%.

For students who do not opt for continuous assessment or who wish to increase their grade with respect to the one acquired through the previous tests, a global assessment test will be developed. In this test the student must demonstrate the knowledge that should have been acquired through the previously mentioned tests, by taking an exam to overcome the theoretical contents, and including the delivery of all the materials produced as a result of the practices. Teachers may formulate the appropriate questions or tests to ensure the originality and quality of the materials submitted.

This global test will take place on the official exam date in accordance with the centre’s calendar.

To pass the course a minimum weighted grade of 5/10 must be obtained and a grade higher than 5/10 in each of the parts of the course (theory, individual practices and group practices). . In case of not obtaining the minimum grade required in any of the tests, the grade in the subject will be the lower value between the weighted average of the three tests and 4/10.