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

Syllabus Information

Academic Year: 2019/20
Subject: 30258 - "User-Centred Design; Design for Multimedia"
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
326 - Escuela Universitaria Politécnica de Teruel
Degree: 443 - Bachelor's Degree in Informatics Engineering
439 - Bachelor's Degree in Informatics Engineering
ECTS: 6.0
Year: 4
Semester: 439 - Second semester
439 - Second semester
439 - Second semester
439 - Second semester
439 - Second semester
443 - Second semester
443 - Second semester
Subject Type: ---
Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented such as:

- Continuous study and work, starting from the first day.
- The learning of concepts and methodologies for the analysis and design of user interfaces during the lectures, in which the students' participation will be fostered.
- The application of such knowledge in the classes of problem solving. In these classes, students will have an active role in the analysis of cases of good practices or small examples.
- In the practical classes in the computer laboratory, the student will review use cases and will learn the technologies needed to develop user interfaces in different platforms.

- Group work will be carried out by developing a project of a user interface for an application proposed by the teachers. This work will be considered for the evaluation in the terms expressed in that section.

4.2.Learning tasks

The course includes the following learning tasks:
- In lectures, the program of the subject will be developed.
- In problem-solving classes, cases of good practices will be analyzed and problems about the application of the concepts and techniques will be solved.
- The practical sessions will be carried out in a computer laboratory. In each session, the student will have to put into practice the activities previously programmed.

4.3.Syllabus

The course will address the following topics:
- Definition and basis of User-Centered Design (UCD).
- Elements for the development of user interfaces for websites and multimedia applications. Compression, quality, and formats for multimedia and web.
- Management of projects of web systems and multimedia development following the principles of UCD.
- Techniques of analysis for UCD.
- Principles of design for the development of user-centered solutions.
- User-centered evaluation methods.
- Usability and accessibility: Guidelines and rules.
- Advanced interfaces: ubiquitous, tangible, natural, sensorial and multimodal interfaces.
- Applications.

4.4.Course planning and calendar

The planning of classroom teaching and the presentation of works will be adjusted to the general schedule established by the University of Zaragoza and the corresponding centers.

4.5.Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]
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- [BB] 1. Human-computer interaction / Alan Dix ... [et al.] . - 3rd ed. Harlow, England [etc.] : Pearson-Prentice Hall, 2004
- [BB] 2. Rogers, Yvonne. Interaction design : beyond human-computer interaction / Rogers, Sharp, Preece . - 3rd ed. Chichester (United Kingdom) : John Wiley & Sons, 2011
- [BB] 3. Shneiderman, Ben. Diseño de interfaces de usuarios : estrategias para una interacción persona-computadora efectiva / Ben Shneiderman, Catherine Plaisant ; traducción, Jesús Sánchez Cuadrado ; supervisión y revisión de la traducción , Jesús García Molina . - 4a. ed. Madrid : Pearson Educación, D.L. 2005
- [BB] 4. Nielsen, Jakob. Usabilidad : diseño de sitios web / Jakob Nielsen ; traducción Santiago Fraguas Madrid [etc.] : Prentice Hall, D.L. 2000
- [BB] 6. Beyer, Hugh. Contextual design: defining customer-centered systems / Hugh Beyer, Karen Holtzblatt San Francisco : Morgan Kaufmann Publishers, cop. 1998
- [BB] 7. Chapman, Nigel P. Digital media tools / Nigel Chapman and Jenny Chapman . - 2nd. ed. Chichester, England : John Wiley, cop. 2003
- [BB] User interface design and evaluation / Debbie Stone ... [et al.] . San Francisco: Elsevier-Morgan Kaufmann, cop. 2005
- [BC] 8. Shi, Yun Q. Image and Video Compression for Multimedia Engineering: Fundamentals, Algorithms, and Standards / Yun Q. Shi y Huifang Sun . 2nd Revised edition CRC Press Inc. (2008)
- [BC] 9. Garrett, Jesse James. The elements of user experience: user-centered design for the web / written and illustrated by Jesse James Garret . - 2nd ed. Berkeley, CA : New Riders, 2011

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- [BB] Stone, D. User Interface Design and Evaluation (Interactive Technologies) / D. Stone, C. Jarrett , M. Woodroffe & S. Minocha, . Morgan Kaufmann Publishers, 2005
- [BC] Garrett, Jesse James. The elements of user experience : user-centered design for the web / written and illustrated by Jesse James Garret . 2nd ed. Berkeley, CA : New Riders, 2011
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