29695 - Multimedia Systems

Syllabus Information

Academic Year: 2020/21
Subject: 29695 - Multimedia Systems
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 558 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS: 6.0
Year: 4
Semester: First semester
Subject Type: Optional
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

This course deals with two important ways of using multimedia as communication technology: websites, and mobile apps based on web technologies. An adequate understanding of the concepts addressed is achieved promoting an active participation of students, so a strict distinction between theory and computer lab sessions will not be made.

4.2.Learning tasks

1. **Theory Sessions**. 30 on-site hours
   The methodology applied is based on illustrative applied problems. After presenting a concept, exercises and activities for its understanding will be proposed.
3. **Computer lab sessions**. 30 on-site hours
   The students carry out the proposed activities whose overall goal is creating a website and a mobile app based on web technologies
5. **Individual work**. 60 off-site hours
   Work consists in creating a medium-complexity website and a mobile app based on web technologies

4.3.Syllabus

Theory Syllabus

1. Overview of Multimedia
2. Fundamentals of Internet and World Wide Web
3. Web Technologies and Standards
    - HTML and CSS
    - JavaScript and DOM
    - Frameworks
    - Server-side Languages
    - CMS
5. Web Design
    - Planning
    - Usability
    - Architecture
    - Exploration
    - Implementation
    - Optimization
7. Media Criteria
8. Mobile Apps Based on Web Technologies

Practice Syllabus

1. Webpages Creation
2. Websites Creation
3. Web Forms
4. Scripts
5. Frameworks
6. Responsive Web Design
7. CMS
8. Mobile App Creation

4.4.Course planning and calendar

The course is estimated to take 150 hours of student effort.
- 60 on-site hours
    - 30 theory hours: 15 two-hour sessions
    - 30 computer lab hours: 15 two-hour sessions
- 90 off-site hours
    - Study hours, works and exams

Detailed information will be provided on the first day of class.

4.5.Bibliography and recommended resources

http://biblos.unizar.es/br/br_citas.php?codigo=29695&year=2020