BASIC DETAILS:

Subject:	ACCESIBILIDAD, USABILIDAD Y REINGENIERÍA DE SITIOS WEB		
Id.:	30076		
Programme:	GRADUADO EN INGENIERÍA INFORMÁTICA. PLAN 2008 (BOE 15/12/2008)		
Module:	TECNOLOGIAS WEB		
Subject type:	OPTATIVA		
Year:	3	**Teaching period:**	Segundo Cuatrimestre
Credits:	3	**Total hours:**	75
Classroom activities:	31	**Individual study:**	44
Main teaching language:	Inglés	**Secondary teaching language:**	Castellano
Lecturer:		**Email:**	

PRESENTATION:

In this subject the main methods, standards and techniques used in the creation of websites will be studied. The creation of web pages will be carried out following the basic principles of user-centered design, accessibility, and usability; without ever forgetting aesthetics, design and style. To achieve the mentioned objectives, we will study the development processes for web projects based on the concept of information architecture and the different tests or studies to ensure that the pages meet the quality criteria desired.

We will also focus on the importance of search engine positioning of web pages and the basic tips for creating friendly pages for those search engines.

PROFESSIONAL COMPETENCES ACQUIRED IN THE SUBJECT:

General programme competences	G03	Capacity to work in multidisciplinary teams to achieve common objectives, placing group interests before personal ones.
	G06	Capacity to analyse and find a solution to complex problems or unforeseen situations which may arise while working in any type of socio-economic organisation.
	G07	Capacity to work flexibly and with versatility to adapt to the needs and requirements of the work situation.
	G08	Ability to communicate effectively about different matters in a variety of professional situations and with the different media available.
	G09	Capacity to make decisions impartially and rationally.
	G10	Critical and analytical capacity when assessing information, data and courses of action.
	G13	Capacity to use individual learning strategies aimed at continuous improvement in professional life and to begin further studies independently.
Specific programme competences	E03	Capacity to recognise the technical principles and apply the appropriate practical methods satisfactorily to analyse and solve engineering problems.
	E04	Capacity to maintain an open mind to innovation and creativity within the framework of the engineering profession.
	E07	Capacity to work effectively in project teams, where appropriate assuming executive responsibilities, and consider the human, technological and financial sides.
	E08	Capacity to communicate productively with clients, users and colleagues both orally and in writing, so as to pass on ideas, solve conflicts and achieve agreements.
	E10	Capacity to understand and assess the impact of technology on individuals, organisations, society and the environment, including ethical, legal and political factors, recognising and applying the pertinent standards and regulations.s éticos, legales y políticos, reconociendo y aplicando los estándares y regulaciones oportunos
	E11	Capacity to remain up-to-date in the technological and business worlds in the area of information and communication technologies.
	E16	Capacity to understand an application demesne so as to be able to develop suitable IT applications.
	E17	Capacity to identify and analyse user needs with the intention of designing effective, usable IT solutions which can be incorporated into the user's operating environment.
	E18	Capacity to identify and define the requirements to be satisfied by IT systems to cover the stated needs of organisations or individuals.
	E21	Capacity to perform tests that verify the validity of the project (functional, data integrity, performance of the computer applications, equipment, communications, etc.).

	E24	Capacity to draw up and develop effective project plans for systems based on information and communication technologies.
Learning outcomes	R01	Communicate with customers and users to meet their goals and needs.
	R02	Use tools for creating quality websites.
	R03	Validate web pages according to different standards.
	R04	Document a technical project.
	R05	Design prototypes of interfaces.
	R06	Understand and apply the basic principles of user-centered design.
	R07	Evaluate and design web pages following the principles of usability and accessibility.
	R08	Know what a website is missing and correct.
	R09	Understand the basic operations of Internet search engines and adapt the pages for this purpose interfaces.
	R10	Design and develop tests to evaluate interfaces.

PRE-REQUISITES:

Knowledge in software development and HTML standards (HTML + CSS + JS)

SUBJECT PROGRAMME:

Subject contents:

1 - Web projects
1.1 - Introduction
1.2 - Scope
1.3 - Objectives
1.4 - Information architecture
1.5 - Design
1.6 - The future
2 - Information architecture
2.1 - Introduction
2.2 - Information organization
3 - Usability
3.1 - Introduction
3.2 - The complicated human being
3.3 - Design and usability
3.4 - Common pitfalls
3.5 - Tests
3.6 - Reports
4 - Web redesign
4.1 - Introduction
4.2 - Practical examples
5 - Web positioning
5.1 - SEO & SEM
5.2 - Search engines
5.3 - Good practices to improve positioning
6 - Accesibility
6.1 - Legislation
6.2 - Regulations
6.3 - Validation

Subject planning could be modified due unforeseen circumstances (group performance, availability of resources, changes to academic calendar etc.) and should not, therefore, be considered to be definitive.

TEACHING AND LEARNING METHODOLOGIES AND ACTIVITIES:

Teaching and learning methodologies and activities applied:

Day by day the student must compose his portfolio of the subject. It include lectures summary and solved exercises. According to the previous paragraph calendar, several exercises will be proposed and its solutions will be discussed some time later. The solutions of everyday exercises will be included in the portfolio and sent to the PDU when they are required. The lecturer will upload his lectures notes on the PDU (Plataforma Docente Universitaria). Self-learning: after class, students have to finish the task has left uncompleted in class or do remain ones. All task must be uploaded to PDU in the time ordered. Students are recommended to consult the lecturer by e-mail.
At the end of the term students must pass a test. It could be composed of some questions, exercises, or oral presentation.

Student work load:

Teaching mode	Teaching methods	Estimated hours
Classroom activities	Master classes	17
	Practical exercises	2
	Practical work, exercises, problem-solving etc.	8
	Coursework presentations	2
	Assessment activities	2
Individual study	Individual study	5
	Individual coursework preparation	5
	Group cousework preparation	18
	Research work	4
	Compulsory reading	12
	Total hours:	75

ASSESSMENT SCHEME:

Calculation of final mark:

Written tests:	40	%
Individual coursework:	20	%
Group coursework:	30	%
Attendance and participation:	10	%
TOTAL	100	%

*Las observaciones específicas sobre el sistema de evaluación serán comunicadas por escrito a los alumnos al inicio de la materia.

BIBLIOGRAPHY AND DOCUMENTATION:

Basic bibliography:

Clint Eccher; Eric Hunley; Erik Simmons, Creación y diseño web profesional,Anaya Multimedia,ISBN: 844151870X
Kelly goto, emily Cotler, Rediseño y desarrollo de sitios web , Anaya Multimedia, ISBN: 8441518548
Steve Krug , No me hagas pensar, Pearson Educación , ISBN: 8483222868.

Recommended bibliography:

Cranford Teague, Jason, DHTML Y CSS AVANZADO, Anaya Multimedia, ISBN: 8441518599
Cristopher Schmitt; Mark Trammell; Ethan Marcotte; Dunstan Orchard; Todd Dominey, CSS Hojas de estilo en cascada para el

diseño web, Anaya, ISBN: 8441519544
Jakob Nielsen, Hoa Loranger, Usabilidad. Prioridad en diseño Web , Anaya Multimedia, ISBN: 8441520925. ISBN-13: 9788441520929

Recommended websites:

Blog personal que trata temas relacionados con el desarrollo web, especialmente aquellos que tienen que ver con la usabilidad y la accesibilidad de las aplicaciones web.	http://olgacarreras.blogspot.com/
Revista de estrategia e interacción	http://www.capire.info
Revista multidisciplinar sobre diseño de interacción	http://www.nosolousabilidad.com
Sitio web del W3C	www.w3c.org
Usabilidad, arquitectura de información y experiencia de usuario	http://www.torresburriel.com
Desarrollo y diseño web	http://www.maestrosdelweb.com
Especificación html 4.01	http://html.conclase.net/w3c/html401-es/cover.html

* Guía Docente sujeta a modificaciones