UAB
Universitat Autònoma de Barcelona

Design of Web-based Systems

Code: 102170
ECTS Credits: 6

2024/2025

Degree	Type	Year
2500003 Business and Information Technology	OT	4

Contact

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Teaching groups languages

You can view this information at the end of this document.

Prerequisites

For a good understanding of the subject, knowledge of the fundamentals of programming languages is necessary.

Objectives and Contextualisation

- Knowing how to create a web page from scratch using HTML and CSS.
- Creating web applications using PHP and MySQL.
- Understanding what a content management system is and how to configure it.
- Knowing how to configure an e-commerce manager.

Competences

- Demonstrating a concern for quality in the objectives and development of the work.
- Demonstrating the ability to plan in accordance to the objectives and available resources.
- Finding algorithmic solutions and using the appropriate programming tools in order to implement them in a organization environment.
- Proposing, analysing, validating and maintaining IT solutions in the context of a business organisation.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

Learning Outcomes

1. Demonstrating a concern for quality in the objectives and development of the work.
2. Demonstrating the ability to plan in accordance to the objectives and available resources.
3. Designing new algorithmic solutions based on the idea of recursiveness or specific design techniques of algorithms.
4. Developing applications distributed on the Internet and web environments.
5. Enumerating the main models and tools used in applications distributed on the Internet.
6. Understand the basic methods for representing information, learning and research for solving problems.
7. Using the more effective and up-to-date technical means in oral and written communication.

Content

The contents are:

- Introduction to web technologies.
- HTML language.
- CSS style sheets.
- Aspects of web design.
- Responsive web design.
- Hosting services.
- AMP environment (Apache, MySQL and PHP).
- Syntax, coding and PHP functions.
- MySQL databases and interaction with PHP.
- Dynamic pages
- Save and retrieve data with MySQL.
- Content Management Sistesms (Wordpress and WooCommerce)
- Online stores

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical and Lab classes	35	1.4	
Theory classes	10	0.4	
Type: Supervised			
Tutorials	15	0.6	
Type: Autonomous			
Preparation of the projects defenses	10	0.4	
Problem based work	50	2	
Reading and study	20	0.8	
Writen reports	10	0.4	

The teaching methodology of the subject focuses on project-based learning. To achieve this goal, the subject will be structured in theory classes and supervised projects aimed at consolidating the contents of the subject. This approach requires a special involvement of students both in the development of face-to-face sessions and in the course's directed activites. Teamwork and collaborative exchange will be encouraged. However, the final learning process must be individual, highlighted by the autonomous activity of each student, who will have to complement and enrich the work initiated in the course's directed sessions. The supervised activity, around regular tutorials and sporadic consultations carried out during the course, is also an indispensable tool in acquiring the knowledge that the subject provides.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Project 1. HTML and CSS	30%	0	0	1, 2, 6
Project 2. PHP and MySQL	40%	0	0	1, 2, 3, 4, 6, 7
Project 3. CMS	30%	0	0	1, 4, 5, 7

"This subject/module does not offer the option for comprehensive evaluation."

The final qualification of the subject will be obtained based on the valuations of the different evidences, taking into account that each one of the parts has a different specific weight:

30% (project1) + 40% (project2) + 30% (project3)

The grade of the subject will be calculated from this weighted sum.

A student who performs at least one of the components of the continuous evaluation can no longer be considered as NOT Evaluable.

Calendar of evaluation activities

The dates of the evaluation activities (exercises, assignments ...) will be announced well in advance during the semester.

Irregularities in evaluation activities

Despite other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"whenever a student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of occurrence of various irregularities in the evaluation of the same subject, the final grade of this subject will be 0"*. ***Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).***

Bibliography

HTML: Lenguaje de etiquetas de hipertexto | MDN (mozilla.org)

CSS | MDN (mozilla.org)

Lenguajes y estándares - Introducción al currículo de estándares web/contenidos (uoc.edu)

PHP: ¿Qué es PHP? - Manual

PHP: MySQLi - Manual

WordPress.org Documentation

Documentation - WooCommerce

HTML Tutorial (w3schools.com) Copyright 1999-2021 by Refsnes Data

CSS Tutorial (w3schools.com) Copyright 1999-2021 by Refsnes Data

Software

The following programs will be used in the practices of the course:

- VSCode
- Chrome/Firefox/Edge/Safari
- MySQL
- WordPress
- WooComerce

Language list

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	201	Catalan	first semester	morning-mixed
(TE) Theory	20	Catalan	first semester	morning-mixed