

# Developing web-based applications

**COURSE:** Any student can sign-up

**SEMESTER:** Spring

**CREDITS:** 3 (2 hrs. per week. 1h Theory immediately followed by 1h Lab)

**LANGUAGE:** English (A similar course is offered in Spanish)

## **DEGREES (recommended):**

- Electrical-Mechanical Engineering IEM (1<sup>st</sup> / 2<sup>nd</sup> semester)
- Communication Engineering ITL first semester (Fall).

## **LEARNING OBJECTIVES:**

To know fundamental concepts of applications that work over Internet connections. To develop client-server applications that use HTML and web-browsers for the user interface, and the Internet for communicating messages between client (user) and server.

The lecture sessions are fully illustrated with programming examples. Just after each lecture there is a Lab session in which all students work individually on the computer to create small applications based on the functionalities described in the lecture.

The course focuses on JavaScript programming language in the client side, and PHP programming language on the server side. The course also includes an introduction to databases and many exercises about PHP and MySQL interaction.

## **CONTENT:**

0. HTML review.
1. Introduction to client-side applications.
2. HTML Forms and JavaScript.
3. Introduction to server-side applications.
4. PHP Introduction
5. PHP Advanced concepts.
6. MySQL and phpMyAdmin.
7. PHP and MySQL: queries.
8. PHP and MySQL: insert and delete records
9. PHP and MySQL: update records
10. AJAX introduction

## **GRADING METHOD**

### **Standard evaluation at the end of the term**

Exams (50%)

Project (40%)

Continuous evaluation (10%)