Web Application Development

Semester: 04

Methodological Teaching Unit: UEM

Subject: Web Application Development

Credits: 4

Coefficient: 2

Teaching Objectives:

The ultimate goal is to learn how to implement a web application.

Recommended Prerequisite Knowledge:

Fundamental notions of algorithmics and programming. Basic understanding of the Internet and networks.

Subject Content:

Chapter 1: Introduction to the World Wide Web

1. Definition and history
2. Client/Server architecture
3. HTTP protocol

Chapter 2: Programming Languages for the Web

1. Generalities: static page, dynamic page, and web applications
2. Tag languages: definition and history
3. HTML
   (a) What is HTML?

(b) HTML execution context

(c) Basic HTML

i. Structure of an HTML document (header, body, links, etc.)

ii. Tables, Frames, Forms

iii. HTML 5.0

iv. Style Sheets (CSS 3)

v. JavaScript

vi. Controlling HTML Forms with JavaScript

4. XML

(a) Structure of an XML document

(b) DTD (Document Type Definition)

(c) XML Schema

(d) XSLT

Chapter 3: Server-Side Programming Language (PHP)

1. Introduction
2. Basic syntax

(a) Transition from HTML to PHP

(b) Instruction separators

(c) Comments

3. Types, variables, and operators
4. Control structures
5. Classes and objects
6. Features

(a) Error handling

(b) File loading management

(c) Using remote files

(d) Connection management

(e) Persistent connections to Databases

(f) Session management

(g) 3-tier Web Applications in PHP

Evaluation Method:

Exam (60%), continuous assessment (40%)

References:

- Web Development Course. Available at: `https://openclassrooms.com/courses`.
- Jean ENGELS. "PHP 5 – Courses and Exercises". Editions Eyrolles, 2005.
- Mathieu Lacroix, "Web Introduction: Courses". University Paris 13, 2013.
- Digimind Company. "Web 2.0 for Monitoring and Information Retrieval, Exploit the Resources of Social Web", Digimind, June 2007.