
CSS 221: Introduction to Web Programming

Year of Study	2
Semester	2
Credit Points	18
Contact Hours per Week	12 (3L, 2S/T, 4AIS, 3PT, 15 Weeks)
Compulsory Course in	ICTB-2, ITS-2, ICTM-2, LIM-2
Electives Courses in:	None
Prerequisites	CSS 121

Course Description

The course covers the use of programming language with PHP and the concepts of database with MySQL. Students are learning the techniques of gathering data from users through Web forms, storing data in a database on the server, retrieving data from database, formatting and displaying the data on the browser. Solutions for practical online services such as session management and user authentication are also discussed.

Course Objectives

This course aimed at providing a hands-on programming experience and to equip students with concepts and skills to develop a database backed, dynamic and feature-rich Web site.

Mode of Delivery

Lectures, Seminars, and Practical Classes

Expected Learning Outcomes

At the end of this course student should be able to:

- i. Understand database application
- ii. Develop database-backed dynamic Web site
- iii. Demonstrate JavaScript programming skills for designing dynamic pages
- iv. Develop server side scripts using PHP
- v. Install and configure a web server on Windows platforms
- vi. Manage user's privileges and roles for databases
- vii. Understand the difference between client and server side processing
- viii. Understand fundamental concepts and principles of web programming and relational database systems.

Course Content

1. Introduction
 - i. The Internet and world wide web
 - ii. Client/server Fundamentals
 - iii. Static and Dynamic web Content
2. Document Object Model(DOM) and Interface
 - i. The Document Object Model (DOM)
 - ii. Forms
 - iii. Introduction to MySQL
3. XHTML and CSS
 - i. Introduction to XHTML
 - ii. Introduction to CSS
 - iii. Exploring JavaScript
4. PHP and MySQL
 - i. Introduction to PHP

- ii. Working with Files in PHP
- iii. Using PHP in Practice
- iv. Cookies, Sessions and Authentication
- 5. Server Side Scripting and Technologies
 - i. Using Ajax
 - ii. Getting started with jQuery
 - iii. CGI Basics
 - iv. Introduction to Perl
- 6. Web Security and Programming Project
 - i. Understand Security Threats
 - ii. Understand Security Roles
 - iii. Developing a Security Policy
 - iv. Understand Authentication
 - v. Creating a Secure Environment
 - vi. Programming Security in PHP
 - vii. Building and processing Dynamic Forms
 - viii. Building a Login Application

Mode of Assessment

Type	Weight
Tests (Test 1: 15%; Test 2: 15%)	30 %
Assignments (Individual: 10%; Group: 10%)	20%
End of Semester Examination	50%
Total	100%

Required Reading

1. Purewal, S. (2014). Learning Web App Development. O'Reilly Media.
2. Robin, N. (2014). Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5 (4th Ed.). O'Reilly Media.

Recommended Reading

1. Luke Welling & Laura Thomson (2004). PHP and MySQL Web Development (3rd Ed.). Sams