

CSCA 512: INTERNET AND WEB TECHNOLOGIES

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Pre-requisite:

- Basic Understanding of Computer Networks & Programming Concepts

Objectives:

- Understand the concepts and architecture of the World Wide Web.
- Understand and practice markup languages
- Understand and practice embedded dynamic scripting on client side Internet Programming
- Understand and practice web development techniques on client-side

Outcomes:

- Ability to understand the working mechanism of internet and world wide web.
- Ability to build web pages using various web technologies.
- Build web applications using clients and server side scripts.

Module-I: Introduction

(9 Hrs)

Internet Standards – Introduction to WWW – WWW Architecture – SMTP – POP3 – File Transfer Protocol - Overview of HTTP, HTTP request – response — Generation of dynamic web pages.

Module-II: UI Design

(9 Hrs)

Markup Language (HTML): Introduction to HTML and HTML5 - Formatting and Fonts – Commenting Code – Anchors – Backgrounds – Images – Hyperlinks – Lists – Tables – Frames - HTML Forms. Cascading Style Sheet (CSS): The need for CSS, Introduction to CSS – Basic syntax and structure - Inline Styles – Embedding Style Sheets - Linking External Style Sheets – Backgrounds – Manipulating text - Margins and Padding - Positioning using CSS.

Module-III: Introduction to Java script

(9 Hrs)

Introduction - Core features - Data types and Variables - Operators, Expressions, and Statements - Functions - Objects - Array, Date and Math related Objects - Document Object Model - Event Handling - Controlling Windows & Frames and Documents - Form handling and validations.

Module-IV: Advanced Java script

(9 Hrs)

Browser Management and Media Management – Classes – Constructors – Object-Oriented Techniques in JavaScript – Object constructor and Prototyping - Sub classes and Super classes – JSON - jQuery and AJAX.

Module-V: PHP & MySQL

(9 Hrs)

Introduction - How web works - Setting up the environment (LAMP server) - Programming basics - Print/echo - Variables and constants – Strings and Arrays – Operators, Control structures and looping structures – Functions – Reading Data in Web Pages - Embedding PHP within HTML – Establishing connectivity with MySQL database.