IT-404B   **WEB TECHNOLOGIES**   **L T P C**
                               (OPEN ELECTIVE)   **4 - - 3**

COURSE OBJECTIVES:

1. To understand basic technologies to develop web documents.
2. To understand design web pages with css and apply scripting to web documents.
3. To understand design dynamic web pages with javascript.
4. To understand concepts of php and database access.

COURSE OUTCOMES:
After successful completion of the course, the students are able to

1. apply technologies to develop web documents.
2. design web pages with css and apply scripting to web documents.
3. create dynamic web pages with javascript.
4. create valid and well-formed xml documents.
5. write server side scripts with php and database access.

UNIT I   **(12)**

Fundamentals : A Brief introduction to the Internet, The World Wide Web, Web Browsers, Web Servers, Uniform Resource Locators, Multipurpose Internet Mail Extensions, The HTTP.

Introduction to XHTML : Origins and evolution of HTML, and XHTML, Basic Syntax, Standard XHTML, Document structures, Basic Text markup, images, hypertext links, lists, tables, forms, frames, syntactic differences between HTML & XHTML.

UNIT II   **(12)**

Cascading Style Sheets (CSS) : introduction, levels of style sheets, style specification formats, selector forms, property value forms, font properties, list properties, color, alignment text, The Box model, Background images, the span and div tags.

The Basics of JavaScript : Overview of JavaScript, Object orientation and JavaScript, General Syntactic characteristics, primitives, operations and expressions, Screen output and keyboard input, control statements.

UNIT III   **(12)**

JavaScript : Object creation and modification, Arrays, Functions, An Example, Constructors, Pattern matching using regular expressions, Errors in scripts.

JavaScript and HTML Documents : The JavaScript Execution Environment, The Document Object Model, Element accessing in JavaScript, Events and Event Handling, Handling Events from Body elements, Handling events from Button elements, Handling Events from Text boxes and password elements, The DOM 2 Event model, The Navigator object.

UNIT IV   **(12)**

Dynamic Documents with JavaScript : Introduction, Element Passing, Moving Elements, Element Visibility, Changing colors and Fonts, Dynamic Content, Stacking Elements, Locating the mouse cursor, Reacting to mouse click, slow movement of elements, dragging and dropping elements.

Introduction to XML : Introduction, The syntax of XML, XML document structure, Document Type Definition, Namespaces, XML Schemas, Displaying Raw XML documents, displaying XML documents with CSS, XSLT Style sheets.

UNIT V (12)

Introduction To PHP : Origins and uses of PHP, Overview of PHP, General Syntactic Characteristics, primitives, Operations and Expressions, Output, Control Statements, Arrays, Functions, Pattern Matching, Form Handling.

Database Access through the web : Relational Databases, An Introduction to the Structured Query Language, The MYSQL Database System, Database Access with PHP and MYSQL.

LEARNING RESOURCES:

TEXT BOOK(s):

Robert W. Sebesta, Programming the World Wide Web, 4/e Pearson Education.

REFERENCE BOOK(s):

1. Harvey M. Deitel and Paul J. Deitel, Internet & World Wide Web How to Program, 5/e, Pearson Education.
2. Jeffrey C. Jackson Web Technologies - A Computer Science Perspective, Pearson Education, 1st Edition.
3. Jason Cranford Teague, Visual Quick Start Guide CSS, DHTML & AJAX, Pearson Education, 4th Edition.

WEB RESOURCES:

http://nptel.iitm.ac.in/courses/