

**E.M.G. YADAVA WOMENS COLLEGE, MADURAI -14.**

(An Autonomous Institution – Affiliated to Madurai Kamaraj University)

Re –accredited (3<sup>rd</sup> cycle) with Grade A<sup>+</sup> and CGPA 3.51 by NAAC

**CBCS****DEPARTMENT OF INFORMATION TECHNOLOGY – B.Sc.****VALUE ADDED COURSE**

(w.e.f. 2021 – 2022 onwards)

**Web Development**

1. This Course is taken up by Third year Information Technology students
2. Period of study : V Semester

**COURSE STRUCTURE**

**Contact Hours: 30 hrs**

**Credit: 1**

<b>S.No.</b>	<b>Sem</b>	<b>Subject Code</b>	<b>Title of the Paper</b>
1.	V	21IVAC	<b>Theory:</b> Web Development
2.	V	21IVACP	<b>Practical:</b> Web Development Lab

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- Create a basic web page using HTML
- Apply styles to page elements using CSS
- Create PHP programs that use various PHP library functions, and that manipulate files and directories.
- Analyze and solve various database tasks using the PHP language.
- Develop basic programming skills using JavaScript

**Unit-I: HTML Introduction** - Introduction to HTML-What are HTML Tags and Attributes?-HTML Tag vs. Element-HTML Attributes.**HTML-Basic Formatting Tags**-HTML Basic Tags-HTML Formatting Tags-HTML Color Coding. **HTML-Lists**-Unordered Lists-Ordered Lists-Definition list. **HTML Table** - < table >- < th > -< tr > -< td >-< caption >-< thead >-< tbody >-< tfoot >-< colgroup >-< col >. **HTML Form** - < input >- < textarea >-< button >-< select >-< label >. **HTML Headers**- Title-Base-Link-Styles-Script-Meta

**Unit –II: CSS Introduction** - **CSS Syntax**- External Style Sheet using < link >-Multiple Style Sheets. **CSS Syntax**- Single Style Sheets- Multiple Style Sheets. **CSS Text Fonts**-color-background-color-text-decoration-text-align-vertical-align-text-indent-text-transform-white space-letter-spacing-word-spacing-line-height-font-family-font-size-font-

style-font-variant-font-weight. **CSS Lists Tables**-list-style-type-list-style-position-list-style-image-list-style-CSS Tables-border-width & height-text-align-vertical-align-padding-color.

**Unit-III: Introduction to JavaScript** -Language Syntax-Built-In Functions-Working with Objects-Call method in JavaScript-Inheritance in JavaScript using prototype-**Introduction of PHP** - Server-side scripting-PHP comments, variables -echo and print-PHP operators, data types--Branching statements-Loops-Arrays

**Unit-IV: Introduction of MySQL** - Understanding Database and Structure- Introduction to Normalization and Data Modeling-Introduction to MySQL and Datatypes-SQL Statements - Create, Insert, Update, Select and Delete-Where Clause-Joins-Group Functions-Connect to MySQL from PHP-Procedural and PDO functions-Backup and Recovery. **Search for themes in WordPress -Select, install, and activate a theme.** Menus About Menus & Locations-Adding & Removing Links in Menus- Creating Submenus-Opening Menu Links in a New Tab.

**Unit-V: Customizing Theme Appearance** -Customizing Appearance-Customizing the Site Identity (Logo, Title, & Tagline)-Adding a Site Icon (Favicon)-Customizing the Header-Customizing Colors. **Creating Links (Hyperlinks)** -Linking to Another Website-Opening a Link in a New Tab-Linking to a Page Within Your Site-Editing & Removing Links.**Adding a Featured Image** – Uploading Images & Files Directly Into the Media Library-Editing & Deleting Images in the Media Library-Deleting Unused Images (Cleaning Out the Media Library)-Adding an Image Gallery-Editing an Existing Image Gallery. **WordPress Plugins:** About, Installing, & Updating .- About WordPress Plugins-Installing a WordPress Plugin -Updating Plugins

**Book Reference:**

1. Jeremy Osborn, Jennifer Smith, and the AGI Training Team, *Web Design with HTML and CSS*, Wiley Publishing, Inc., Indianapolis, Indiana, 2011.
2. Jennifer Niederst Robbins, *Learning web designing A Beginners guide to HTML, CSS, Java script and Web graphics*, oreilly publications, new delhi, Fourth Edition, A 2012.
3. Mariza Maini, *WEB DESIGN Manual*, Open Society for Idea Exchange, Zagreb, 2015.

## PRACTICALS

**Title of the Paper: Web Development Lab**

**Subject Code : 21IVACP**

### List of Programs:

1. Design the following static web pages required for an online book store web site.
  - 1) **HOME PAGE:** The static home page must contain three **frames**.
  - 2) **LOGIN PAGE**
  - 3) **CATALOGUE PAGE:** The catalogue page should contain the details of all the books available in the web site in a table.
  - 4) **REGISTRATION PAGE**
2. Develop and demonstrate the usage of inline, internal and external style sheet using CSS
3. Write an HTML page that contains a selection box with a list of 5 countries. When the user selects a country, its capital should be printed next in the list. Add CSS to customize the properties of the font of the capital (color, bold and font size).
4. Write *JavaScript* to validate the following fields of the Registration page.
  1. **First Name** (Name should contains alphabets and the length should not be less than 6 characters).
  2. **Password** (Password should not be less than 6 characters length).
  3. **E-mail id** (should not contain any invalid and must follow the standard pattern [name@domain.com](mailto:name@domain.com))
  4. **Mobile Number** (Phone number should contain 10 digits only).
  5. **Last Name and Address** (should not be Empty).

5. Develop and demonstrate PHP Script for the following problems:
  - a) Write a PHP Script to find out the Sum of the Individual Digits.
  - b) Write a PHP Script to check whether the given number is Palindrome or not
  
6. Write a PHP Program to display current Date, Time and Day.
  
7. Implement the web applications with Database using
  - (a) PHP (b) Servlets and (c) JSP.
  
8. Write a program to design a simple calculator using
  - (a) JavaScript (b) PHP (c) Servlet and (d) JSP.