# SRI VENKATESWARA UNIVERSITY
## B.Sc. DEGREE COURSE IN WEB ENABLED TECHNOLOGY
## IV SEMESTER
### (Syllabus under CBCS w.e.f. 2021-22)

| Semester | Course Code | Course Title | Hours | Credits |
|---|---|---|---|---|
| IV | C4 | HTML, CSS & Java Script | 60 | 3 |

**Course Objectives**

Creation of static web pages using CSS and Java script

**Course Outcomes**

Upon successful completion of the course, a student will be able to:
1. Create a static webpage.
2. Acquainted with HTML basic tags, frames, lists, table, etc.
3. Create a webpage using cascading style sheets and HTML.
4. Validate web pages with the help of javascript

**UNIT I**

**HTML:** Introduction to HTML, CSS, JavaScript. HTML structure, elements, attributes, headings, paragraphs, styles, HTML formatting, Quotations, Comments, images, tables, lists, blocks and classes, HTML CSS, HTML frames, file paths, layout, symbols, HTML responsive.

**UNIT II**

HTML forms: HTML form elements, input types, input attributes, HTML5, HTML graphics, HTML media – video, audio, plug ins, youtube. **HTML API'S :** Geolocation, Drag/drop, local storage, HTML SSE.

**UNIT III**

CSS: CSS home, introduction, syntax, colours, back ground, borders, margins, padding, height/width, text, fonts, icons, tables, lists, position, over flow, float, CSS combinators, pseudo class, pseudo elements, opacity, tool tips, image gallery, CSS forms, CSS

counters, CSS responsive.

## UNIT IV

An introduction to Java Script: What is dynamic html, Java Script, Javascript—The basics, Variables, String manipulation, Mathematical functions, Statements, Operators, Arrays, Functions.

## UNIT V

Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events. Dynamic HTML with Java Script: Data validation, Opening a new window, Messages and Confirmations, The status bar, Writing to a different frame, Rollover buttons, Moving images, Multiple pages in a single download, A text-only menu system, Floating logos.

## REFERENCE BOOKS

1. Chris Bates, Web Programming Building Internet Applications, Second Edition, Wiley (2007)
2. Paul S.Wang Sanda S. Katila, An Introduction to Web Design Plus Programming, Thomson(2007).
3. Robert W.Sebesta, Programming the World Wide Web, Third Edition, Pearson Education (2007).
4. Thomas A.Powell, The Complete Reference HTML & XHTML, Fourth Edition, Tata McGraw Hill (2006).
5. Abders Moller and Michael Schwartzbach, An Introduction to XML and Web Technologies, Addison Wesley (2006).
6. Joel Sklar, Principles of Web Design, Thomson (2007).

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

### A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)

2. Student seminars (on topics of the syllabus and related aspects (individual activity))

3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))

4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

**B.** General

1. Group Discussion

2. Try to solve MCQ's available online.

3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills.
6. Individual and group project reports like "Create a web page for a shopping mall".
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

| Semester | Course Code | Course Title | Hours | Credits |
|----------|-------------|--------------|-------|---------|
| IV | C4-P | **HTML, CSS and JavaScript lab** | 30 | 2 |

1. Write a HTML program illustrating text formatting.
2. Illustrate font variations in your HTML code.
3. Prepare a sample code to illustrate links between different sections of the page.
4. Create a simple HTML program to illustrate three types of lists.
5. Embed a real player in your web page.
6. Embed a calendar object in your web page.
7. Create an applet that accepts two numbers and perform all the arithmetic operations on them.
8. Create nested table to store your curriculum.
9. Create a form that accepts the information from the subscriber of a mailing system.
10. Write a Program in Java Script to add two numbers.
11. Write a script to find the factorial of a given number usingfunctions.
12. Write a script to print all primes with in the given range.
13. Write a program to sort the array elements using "Bubble Sort" technique.
14. Write a program in Java Script to implement "Binary Search" technique.
15. Write a script to print all perfect numbers with in the given range.
16. Using DHTML, invert the behavior of <h1> to <h6> tags.
17. Create an inline style sheet for your web page.
18. Create an external style sheet for creating a font family.
19. Illustrate the creation of embedded style sheet.

| Semester | Course Code | Course Title | Hours | Credits |
|---|---|---|---|---|
| **IV** | **C5** | PHP & MySQL | **60** | **3** |

**Course Objectives**

To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySQL connectivity, PHP form validation, PHP form handling. Overview of MySQL and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySQL.

**Course Outcomes**

After completing this course satisfactorily, a student will be able to:

1. Introduction to web development with PHP
2. How to code a PHP application
3. Introduction to relational databases and MySQL
4. How to use PHP with a MySQL database
5. How to use the MVC pattern to organize your code
6. How to test and debug a PHP application
7. How to work with form data
8. How to code control statements
9. How to work with strings and numbers
10. How to work with dates
11. How to create and use arrays
12. How to work with cookies and sessions
13. How to create and use functions
14. How to use regular expressions, handle exceptions, and validate data

**Unit-1:**

**The Building blocks of PHP:** Variables, Data Types, Operators and Expressions, Constants. **Flow Control Functions in PHP:** Switching Flow, Loops, Code Blocks and Browser Output. **Working with Functions:** What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments.

**Unit-2:**

**Working with Arrays:** What are Arrays?, Creating Arrays, Some Array-Related Functions. **Working with Objects:** Creating Objects, Object Instance **Working with Strings, Dates and Time:** Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

**Unit-3:**

**Working with Forms:** Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads**. Working with Cookies and User Sessions:** Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users.

**Unit-4:**

**Working with Files and Directories:** Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen(), Running Commands with exec(), Running Commands with system() or passthru().

**Working with Images:** Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

**Unit-5:**

**Interacting with MySQL using PHP:** MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. **Creating an Online Address Book:** Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

**REFERENCE BOOKS**

**1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).**
**2. Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).**

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4. Practical assignments and laboratory reports,

5. Observation of practical skills,

6. Individual and group project reports like building a complete website with a back

end database.

7. Efficient delivery using seminar presentations,

8. Viva voce interviews.

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| IV | C5-P | PHP & MySql LAB | 30 | 2 |

**MySQL Lab**

**Cycle Cycle -1**

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.

Suppliers (sid: Integer, sname: string,

address: string) Parts (pid: Integer, pname:

string, color: string) Catalog (sid: integer,

pid: integer, cost: real)

**The catalog relation lists the prices charged for parts by suppliers.**

Write the following queries in SQL:

1. Find the pnames of parts for which there is some supplier.
2. Find the snames of suppliers who supply every part.
3. Find the snames of supplier who supply every red part.
4. Find the pnames of parts supplied by London Supplier abd by no one else.
5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
6. For each part, find the sname of the supplier who charges the most for that part.
7. Find the sid's of suppliers who supply only red parts.
8. Find the sid's of suppliers who supply a red and a green part.
9. Find the sid's of suppliers who supply a red or green part.
10. Find the total amount has to pay for that supper by part located from London.

**Cycle – 2**

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary:

real) Works (<u>eid: integer, did: integer</u>, pct_time:

integer)

Dept (<u>did: integer</u>, budget: real, managerid: integer)

An employee can work in more than one department; the pct_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.
Print the names and ages of each employee who works in both Hardware and Software departments.

1. For each department with more than 20 full time equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.
2. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
3. Find the managerid's of managers who manage only departments with budgets greater
   than 1,000,000.
4. Find the enames of managers who manage the departments with largest budget.
5. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.
6. Find the managerid's of managers who control the highest amount.
7. Find the average manager salary.

## PHP Lab Cycle

1. Write a PHP program to Display "Hello"
2. Write a PHP Program to display the today's date.
3. Write a PHP Program to read the employee details.
4. Write a PHP Program to display the
5. Write a PHP program to prepare the student marks list.
6. Write a PHP program to generate the multiplication of two matrices.
7. Write a PHP Application to perform demonstrate the college website.
8. Write a PHP application to add new Rows in a Table.
9. Write a PHP application to modify the Rows in a Table.
10. Write a PHP application to delete the Rows from a Table.
11. Write a PHP application to fetch the Rows in a Table.
12. Develop an PHP application to make following Operations
    i. Registration of Users.
    ii. Insert the details of the Users.
    iii. Modify the Details.
    iv. Transaction Maintenance.
        a) No of times Logged in
        b) Time Spent on each login.
        c) Restrict the user for three trials only.
        d) Delete the user if he spent more than 100 Hrs of transaction.