Learning Objectives:

To enable students to understand open-source tools to create dynamic web pages, implement user interactivity, and gain proficiency in developing web sites

Learning Outcomes: On successful completion of the course, students will be able to

1. Write simple programs in PHP.
2. Understand how to use regular expressions, handle exceptions, and validate data using PHP.
3. Apply In-Built functions and Create User defined functions in PHP programming.
4. Write PHP scripts to handle HTML forms.
5. Know how to use PHP with a MySQL database and can write database driven web pages.

UNIT-I

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:** Creating functions, Calling functions, Returning the values from User- Defined Functions, Variable Scope, Saving state between Function calls with the static statement,arguments of functions

UNIT-II

Working with Arrays: Creating Arrays, Some Array-Related Functions.
Working with Objects: Creating Objects, Accessing Object Instances, **Working with Strings**, **Dates and Time:** Formatting strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

UNIT-III

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, Redirectingthe user, Sending Mail on Form Submission, and **Working with File Uploads**, Managing files onserver, **Exception handling.**

UNIT-IV

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-V

Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, connecting to MySQL with PHP, Working with MySQL Data. Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism.

Text Book(s)

1. Julie C. Meloni, SAMS Teach yourself PHP MySQL and Apache, Pearson Education (2007).
2. Steven Holzner , PHP: The Complete Reference, McGraw-Hill

Reference Books

1. Robin Nixon, Learning PHP, MySQL, JavaScript, CSS & HTML5, Third Edition O'reilly, 2014
2. Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).

SUGGESTED CO-CURRICULAR ACTIVITIES & EVALUATION METHODS:

Unit 1: Activity: Infographic explanation of client-server architecture and different server-side scripting languages.

Evaluation Method: Assess the accuracy, visual design, clarity, creativity, use of visual elements, presentation of the infographic explaining the benefits of server-side scripting languages.

Unit 2: Activity: Presentation on various open-source frameworks available in LAMP model

Evaluation Method: Content knowledge, organization, clarity, presentation skills, visual aids, audience engagement

Unit 3: Activity: Code snippets Challenge.

Evaluation Method: Accuracy, functionality, efficiency, code readability, and problem-solving approach of the PHP code snippets

Unit 4: Activity: Group discussion on Session Management in PHP

Evaluation Method: Active participation, knowledge sharing, critical thinking, and demonstration of Session Management

Unit 5: Activity: Hands-on Lab Session on MYSQL Queries

Evaluation Method: Lab Performance and Correctness of solution Implementation

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V Semester
Course 13: Web Applications Development using PHP & MYSQL
Credits -1

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List of Experiments:

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 display Fibonacci series.

4. Write a PHP Program to read the employee details.

5. Write a PHP program to prepare the student marks list.

6. Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.

7. Create Website Registration Form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.

8. Write PHP script to demonstrate passing variables with cookies.

9. Write a PHP script to connect MySQL server from your website.

10. Write a program to keep track of how many times a visitor has loaded the page.

11. Write a PHP application to perform CRUD (Create, Read, Update and Delete) operations on a database table.

12. Create a web site using any open-source framework built on PHP and MySQL – It is a team activity wherein students are divided into multiple groups and each group comes up with their own website with basic features.