SILVER OAK UNIVERSITY

School of Technology, Design and Computer Application
Silver Oak College of Computer Application
Bachelor of Science Computer Science & Information Technology
Course Name: Server-Side Web Development Using PHP
Course Code: 3040243236
Semester: 4th

Prerequisite: Knowledge of basic HTML is required.

Course Objective: In the era of digitization, the demand of Internet based applications is increasing day by day. To put students in the orbit of this Internet driven world and to make them comfortable in developing various web-based applications, this course is focusing on front-end and Back-end design.

Teaching Scheme:

Teaching Scheme				
L	T	P	Contact Hours	Credit
2	0	4	6	4

Contents:

Sr. No.	Content	Teaching Hours	% Weightage
1	**Introduction** Basics of WWW, HTTP protocol methods and headers, HTTP Request and Response, Architecture of web browser, Web server installation and configuration, Web security, CORS, Understanding SEO	03	11
2	**PHP Basics** Introduction to Server side programming, PHP variables, decision and looping with examples, PHP and HTML, Arrays, Functions, Browser control and detection, String, Form processing, File uploads, Dates and timezone, Working with Regular Expressions, Exception Handling, Working with JSON data, Object Oriented Programming with PHP	08	29
3	**Session and State Management using PHP** Need of session management, Various techniques for state and session management like: Hidden Fields, Query String, Cookie and Session	10	35

4	**Database Connectivity using PHP** Basic commands for database connection and query execution with CURD examples, Object oriented database access using PHP , Model View Controller Architecture in PHP Asynchronous Web requests using AJAX, Creating REST API using PHP ,Working with jQuery, Using plugins in jQuery and Creating Image slider, Generating charts from data using 3rd Party Libs	07	25

Course outcome:

Sr.No.	CO statement	Unit No
CO-1	Understand the concepts of WWW, HTTP protocol and client-server architecture.	1
CO-2	Learn and apply various HTML tags to build the user friendly web pages.	2
CO-3	Create interactive web pages to improve the user experience using client side scripting with JavaScript.	3
CO-4	Design and develop fully functional dynamic web applications using the concepts of PHP, MySQL,	4

Teaching & Learning Methodology:

1. Problem - based Learning
2. Cooperative-based Learning
3. Competency-based Learning

List of Experiments: **Total Hours: 56**

Sr. No.	Practical Name
1	Write a PHP script to display Welcome message
2	Write a PHP script to demonstrate arithmetic operators, comparison operator, and logical operator
3	Write PHP Script to generate result and display grade.
4	Write PHP Script to find maximum number out of three given numbers.
5	Write PHP script to obtain 5! Using function
6	Write PHP Script for addition of two 2x2 matrices
7	Write PHP script to demonstrate string function.

8	Write two different PHP script to demonstrate passing variables with sessions.
9	Write a PHP script to print numbers from 1 to 100 using a loop, and classify them as odd or even.
10	Create a PHP script that generates a dynamic HTML table with user-provided data.
11	Write a PHP script to perform operations on arrays (e.g., sorting, merging, and searching).
12	Develop a PHP script that performs string manipulations like concatenation, substring extraction, and case conversion.
13	Create a PHP form that accepts user details and displays the submitted information on another page.
14	Write a PHP script to upload a file to the server and display its details (name, size, type).
15	Create a PHP script to validate user input (e.g., email address, phone number) using regular expressions.
16	Design a PHP class Product with properties (e.g., name, price) and methods (e.g., display details).
17	Write a PHP script to sort an array in ascending order.
18	Write a PHP script to count the number of elements in an array.
19	Write a PHP script to demonstrate the use of functions.
20	Write a PHP script to process a form and display user input.
21	Write a PHP script to generate and display a grade based on user input.
22	Create a login system using PHP sessions to maintain user state across pages.
23	Develop a script that stores user preferences (e.g., theme or language) in cookies and retrieves them on subsequent visits.
24	Create a PHP application to perform basic CRUD operations (Create, Read, Update, Delete) on a MySQL database.
25	Write a PHP script to retrieve data from a MySQL database.
26	Develop a PHP application that separates logic, presentation, and data handling using the MVC pattern.
27	Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page
28	Write a program to read customer information like cust_no, cust_name, Item_purchase, and mob_no, from customer table and display all these information in table format on output screen.

List of e-Learning Resources:

1. Web Security and SEO:

   https://www.tutorialspoint.com/seo/index.htm

   https://github.com/vasanthk/web-security-basics

2. HTML:

   https://developer.mozilla.org/en-US/docs/Web/HTML

   https://www.w3schools.com/html/

   https://www.tutorialspoint.com/html/index.htm

3. CSS:

   https://developer.mozilla.org/en-US/docs/Web/CSS

   https://www.manning.com/books/css-in-depth

   https://www.w3schools.com/css/

   https://www.tutorialspoint.com/css/index.htm

Major Equipment:

1. Computer System
2. LAN cable

Books Recommended:

1. By Kogent Learning Solutions Inc. HTML 5 Black Book
2. By Steven Holzner, McGrawhillPHP: The Complete Reference

CO-PO-PSO Matrix:

Co. No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO-1	3		1	1	1							1	1	2
CO-2		2	3		3							1	1	1
CO-3	3		2	2									1	2
CO-4		2	1	1	2							1	1	1