



<b>Part A Introduction</b>		
<b>Program: Under Graduate Course</b>	<b>II year</b>	<b>Session: 2022-23</b>
<b>Course Code</b>	<b>V2- COS-WEBT</b>	
<b>Course Title</b>	<b>Web Development using PHP &amp; MySQL</b>	
<b>Course Type</b>	<b>Vocational</b>	
<b>Pre-requisite (if any)</b>	<b>Level-1 course– V1-COS-WEBT (Web Designing)</b>	
<b>Course Learning outcomes (CLO)</b>	<p><b>After completion of course, students will be able to -</b></p> <ul style="list-style-type: none"> <li>• Discover how the web works, what makes web sites work.</li> <li>• Implement simple and impressive design techniques, from basics to advanced – so as to focus on goal oriented and user centric designs.</li> <li>• Use Server Side Scripting.</li> <li>• Implement concept of data persistence.</li> <li>• Apply skills to program logic using PHP and handle data using MySQL.</li> <li>• Develop dynamic websites using PHP &amp; MySQL.</li> </ul>	
<b>Expected Job Role / career opportunities</b>	<p><b>Job Role -</b> Web Designer / Front End &amp; Back End Developer/ Creative Ad Designer.</p> <p><b>Job Description –</b> PHP developers write server-side web applications using Hypertext Preprocessor (PHP) scripting languages. They are tasked with developing and coding back-end components and connecting applications to other web services. PHP developers also assist front-end developers to ensure their work integrates into the application.</p> <p><b>Career Opportunities –</b></p> <p>Typical employers of web developers and designers are –</p> <ul style="list-style-type: none"> <li>❖ Software companies</li> <li>❖ IT consultancies</li> <li>❖ Specialist web design companies</li> <li>❖ Large corporate organisations</li> <li>❖ Any organisation that uses computer systems</li> <li>❖ Self-employment/freelance work is often possible for individuals with appropriate experience.</li> </ul> <p>Vacancies are advertised online, by career services and by recruitment agencies.</p>	
<b>Credit Value</b>	<b>2 (Theory) + 2 (Practical) = 04</b>	
<b>Part B- Content of the Course</b>		
Total No. of Lectures + Practical (in hours per week): <b>L-1 Hr / P-1 Lab Hr (=2 Hrs)</b>		
Total No. of Lectures/ Practical: <b>L-30 /P-30 (60 Hrs)</b>		

  
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Module	Topics	No. of lectures (Total 30)
I	<p><b>BASICS OF PHP:</b> Introduction to PHP, PHP features, installation of XAMPP/WAMP, Benefits of using PHP MYSQL, Server Client Environment, Web Browser, Web Server Installation &amp; Configuration Files.</p> <p>OOPs with PHP, language basics, syntax, comments, variables, constants and data types, expressions and operators, flow control statements, looping structures, Arrays</p> <p>Including html code in PHP, Embedding PHP in web pages.</p>	6
II	<p><b>FUNCTIONS &amp; STRINGS in PHP:</b> Defining a function, Calling a function, variable scope, function parameters, return values, User Defined Function, System Defined Function, Parameterized Function, Date &amp; Time Function, Hash Function, Mail Function, predefined functions.</p> <p>Strings: Creating &amp; accessing string, searching and replacing strings, encoding and escaping, comparing strings, formatting strings, regular expression.</p>	6
III	<p><b>Data &amp; File Handling:</b> PHP Forms: \$_GET, \$_POST, \$_REQUEST, \$_FILES, \$_SERVER, \$GLOBALS, \$_ENV, input/output controls, validation, Cookies and Sessions.</p> <p>File Handling: File and directory, open, close, read, write, append, delete, uploading and downloading files. File exists, File Size, Rename. Reading and display all/selected files present in a directory.</p>	6
IV	<p><b>MySQL an Overview:</b> Introduction, What is a Database, Understanding an RDBMS, Tables, Record &amp; Fields, SQL Language.</p> <p><b>Working with phpmyadmin:</b> Creating and using a database, Selecting a database, creating/dropping a table, loading data into a table, Retrieving information from a table, selecting all data, selecting particular rows, selecting particular columns, writing queries, sorting, date, calculations, working with NULL values, pattern matching, counting rows, using more than one tables, using table and column aliases.</p>	6
V	<p><b>MySQL DATABASES IN PHP:</b> Introduction, connecting to a MySQL database, querying the database, Retrieving and displaying the results, modifying data and deleting data through front end. Designing applications using PHP &amp; MySQL.</p>	6
<b>Practical</b>		<b>No. of lectures</b>

  
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	<ol style="list-style-type: none"> <li>1. Create a simple HTML form and accept the user name and display the name through PHP echo statement.</li> <li>2. Write a PHP script to demonstrate arithmetic operators, comparison operator, and logical operator.</li> <li>3. Write PHP Script to input marks, generate result and display grade.</li> <li>4. Write PHP Script for addition of two 2x2 matrices.</li> <li>5. Write PHP script to obtain factorial of a number using function</li> <li>6. Write PHP script to demonstrate string, date and math function.</li> <li>7. Create student registration form using text box, check box, radio button, select, submit button. And display user inserted value in new PHP page.</li> <li>8. Write two different PHP script to demonstrate passing variables through a URL.</li> <li>9. Write two different PHP script to demonstrate passing variables with sessions.</li> <li>10. Write PHP script to demonstrate passing variables with cookies.</li> <li>11. Write a program to keep track of how many times a visitor has loaded the page.</li> <li>12. Write PHP script to demonstrate exceptional handling.</li> <li>13. Write a PHP script to connect MySQL server from your website.</li> <li>14. Create EMP table with emp_no, emp_name, designation and salary. Write a program to read employee information from EMP table and display all this information in php page.</li> <li>15. Create customer table in mysql with cust_no, cust_name, item_purchased, and mob_no, insert 10 records into it.</li> <li>16. Write a program to read customer information from customer table and display all these information in table format on php page.</li> <li>17. Design a web form in php to input values for the customer record and insert the record in customer table as a tuple.</li> <li>18. Design an "update" web form to edit name of customer to "Bob" with cust_no =1</li> <li>19. Design a "delete" web form to delete record with cust_no=3.</li> <li>20. Create a dynamic web site using PHP and MySQL.</li> </ol>	<p style="text-align: center;"><b>30</b></p> <p style="text-align: center;">(02 Hours each)</p>
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**Project/ Field trip:**

**Part C-Learning Resources**

**Text Books, Reference Books, Other resources**

1. Head First PHP & MySQL, Lynn Beighley & Michael Morrison, O'Reilly



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2. PHP: A Beginner's Guide, Vikram Vaswani, McGraw-Hill Edition
3. Learning PHP, MySQL, JavaScript, & CSS: A Step-by-Step Guide to Creating Dynamic Websites, Robin Nixon, O'Reilly
4. PHP and MySQL Web Development, Luke Welling, Addison-Wesley
5. The Joy of PHP, Alan Forbes, BeakCheck LLC
6. Learning PHP, MySQL, JavaScript, & CSS: A Step-by-Step Guide to Creating Dynamic Websites, Robin Nixon, O'Reilly

**Suggested equivalent online courses: e-reading:**

1. [https://onlinecourses.swayam2.ac.in/aic20\\_sp32/preview](https://onlinecourses.swayam2.ac.in/aic20_sp32/preview)
2. <https://www.udemy.com/course/php-mysql-tutorial/>
3. <https://www.udemy.com/course/php-mysql-course-for-absolute-beginners/>
4. <https://www.simplilearn.com/learn-php-basics-free-course-skillup>
5. <https://www.coursera.org/learn/web-applications-php>



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