

<b>Name of Faculty</b>	:	Faculty of Computer Science & Applications
<b>Name of Program</b>	:	Bachelor of Computer Applications (BCA)
<b>Course Code</b>	:	2BCA03
<b>Course Title</b>	:	Advance Web Technology
<b>Type of Course</b>	:	Professional Course
<b>Year of Introduction</b>	:	2023-24

<b>Prerequisite</b>	:	Basic of Web Technology
<b>Course Objective</b>	:	The theory should be taught and practical should be carried out in such a manner that students are able to acquire different learning out comes in cognitive, psychomotor and affective domain to demonstrate following course outcomes
<b>Course Outcomes</b>	:	At the end of this course, students will be able to:
	CO 1	Create small programs using basic PHP concepts.
	CO 2	Apply In-Built and Create User defined functions in PHP programming
	CO 3	Design and develop a Web site using form controls for presenting web based content
	CO 4	Create dynamic Website/ Web based Applications, using PHP, MySQL database

### Teaching and Examination Scheme

Teaching Scheme (Contact Hours)			Credits	Examination Marks				
L	T	P		SEE	CIA	SEE	CIA	Total Marks
2	0	4	4	50	25	50	25	150

Legends: **L**-Lecture; **T**-Tutorial/Teacher Guided Theory Practice; **P** - Practical, **C** - Credit, **SEE** - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations /MCQ Tests, etc.))

### Course Content

Unit No.	Topics	Teaching Hours	Weightage	Mapping with CO
1	<b>Introduction to PHP:</b> Identify relationship between Apache, MySQL and PHP ,State steps to Install & test web server ,State Steps to Configure Apache to use PHP, Create simple PHP page using PHP structure and Syntax, List and state use of PHP variables, data types , Describe use of PHP Operators. Apply control structures in Programming, State the steps to create user defined functions, Apply various	9	20%	CO1

	InBuilt Variable, String, MATH, Date, Array, File Functions in programming			
2	<b>Working Arrays, Forms and with Functions:</b> What Is an Array?, Creating an Array, Adding , Accessing Array Elements, Creating, Sorting multidimensional array, Transforming Between Strings and Arrays, Creating an Array from a Form. Creating Templates, Using External Files, Using Constants, Working with the Date and Time, Handling HTML, Forms with PHP, Revisited, Making Forms Sticky, Sending Email, Output Buffering, Manipulating HTTP Headers. Creating and Using Simple Functions, Creating and Calling Functions that Take Arguments, Setting Default Argument Values, Understanding Variable Scope	7	20%	CO2
3	<b>Advanced PHP:</b> What Are Cookies?, Creating Cookies, Reading from Cookies, Adding Parameters to a Cookie, Deleting a Cookie, What Are Sessions?, Creating a Session, Accessing Session Variables, Deleting a Session. File Permissions, Writing to Files, Locking Files, Reading from Files, Handling File Uploads, Navigating Directories, Creating Directories, Reading Files Incrementally	7	30%	CO3
4	Describe/ State MySQL structure and Syntax, Discuss types of MySQL tables and storage engines, Apply/Use various MySQL commands on database, State steps to connect with database using PHP and MYSQL, Write MySQL commands to Insert, Update, Delete records Describe steps for hosing a Website using 'C' panel and File zilla software	7	30%	CO4

Suggested Distribution of Theory Marks Using Bloom's Taxonomy						
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
<b>Weightage</b>	<b>30</b>	<b>40</b>	<b>30</b>	-	-	-

*NOTE: This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.*



**Suggested List of Experiments/Tutorials**

Sr. No.	Name of Experiment/Tutorial	Teaching Hours
1	<b>a.</b> Install and configure PHP, web server, and MYSQL <b>b.</b> Write a program to print "Welcome to PHP" <b>c.</b> Write a simple PHP program using expressions and operators.	2
2	Write a PHP program to demonstrate the use of Decision-making control structures using- <b>a.</b> If statement <b>b.</b> If-else statement <b>c.</b> Switch statement	2
3	Write a PHP program to demonstrate the use of Looping structures using- <b>a.</b> While statement <b>b.</b> Do-while statement <b>c.</b> For statement <b>d.</b> Foreach statement	2
4	Write a PHP program for creating and manipulating- Indexed array Associative array Multidimensional array	2
5	<b>a.</b> Write a PHP program to- i. Calculate length of string. ii. Count the number of words in string without using string functions. <b>b.</b> Write a simple PHP program to demonstrate use of various built-in string functions.	2
6	Write a simple PHP program to demonstrate use of simple function and parameterized function.	2
7	Write a simple PHP program to create PDF document by using graphics concepts	2
8	Design a web page using following form controls: <b>a.</b> Text box, <b>b.</b> Radio button, <b>c.</b> Check box, <b>d.</b> Buttons List box, <b>e.</b> Combo box, <b>f.</b> Hidden field box	2
9	Write simple PHP program to - <b>a.</b> Set cookies and read it. <b>b.</b> Demonstrate session management	4
10	Develop web page with data validation.	2

	<p>a. Form validation is required to prevent web form abuse by malicious users. Improper validation of form data is one of the main causes of security vulnerabilities. It exposes your website to attacks such as header injections, cross-site scripting, and SQL injections.</p> <p>b. header injection attacks can be used to send email spam from your web server.</p> <p>c. cross-site scripting may allow an attacker to post any data to your site.</p> <p>d. SQL injection may corrupt your database backend</p>	
11	<p>Develop a simple application to -</p> <p>a. Enter data into database.</p> <p>b. Retrieve and present data from database</p>	2
12	<p>Develop a simple application to Update, Delete table data from database. PHP MySQL Update Query</p>	2

#### Major Equipment/ Instruments and Software Required

Sr. No.	Name of Major Equipment/ Instruments and Software
1	Web browser
2	Notepad / Sublime text / Visual studio code

#### Suggested Learning Websites

Sr. No.	Name of Website
1	<a href="https://www.w3schools.com/">https:// www.w3schools.com/</a>
2	<a href="https://www.tutorialspoint.com/">https:// www.tutorialspoint.com/</a>

#### Textbooks

Sr. No.	Name of Textbooks
1	Steven Holzner, PHP: The Complete Reference, McGraw-Hill, 2008
2	Robin Nixon , Learning PHP, MySQL JavaScript, CSS & HTML5, Third Edition O'Reilly Media , 2014

#### Reference Books

Sr. No.	Name of Reference Books
1	Black Book, HTML 5, Dreamtech Press
2	Black Book, Web Technologies, Dreamtech Press
3	Ralph Moseley and M. T. Savaliya, Developing Web Applications, Wiley-India
4	Cody Lindley, jQuery Cookbook, O'Reilly Media
5	Ryan Benedetti, Ronan Cranley, Head First jQuery - A Brain-Friendly Guide, O'Reilly Media