

**FACULTY OF COMPUTER APPLICATIONS**

- **Course** : BCA
- **Sem.** : 5
- **Subject Code** : 05BC0504
- **Subject** : **Web Application Development using PHP/MySQL**
- **Objective** :
  1. To be able to develop web application using open source technologies
  2. To learn PHP scripting language and deploying application on Apache Web Server
  3. To learn Apache Web Server configuration
  4. To learn MySQL database deployment for web application
- **Prerequisites** : Fundamentals of Web, HTML

Unit No	Topics Covered	No of lectures required
<b>1</b>	<p><b>Apache Installation and Configuration</b></p> <ul style="list-style-type: none"> <li>○ Current version of Apache,</li> <li>○ Installing apache, Apache configuration file structure, Apache log files, Starting apache</li> </ul> <p><b>PHP Installation and Configuration</b></p> <ul style="list-style-type: none"> <li>○ Current version PHP &amp; MySQL, Installing /Building PHP &amp; MySQL on different platforms with apache, Php.ini Basics, .htaccess, The basics of PHP scripts</li> </ul>	<b>6</b>
<b>2</b>	<p><b>PHP Overview Flow control and building blocks</b></p> <ul style="list-style-type: none"> <li>○ Variables, Data types, Operators and expressions, Constants, Switching flow, Loops, Code blocks and browser Output.</li> </ul> <p><b>Working with Functions, Arrays and Objects</b></p> <ul style="list-style-type: none"> <li>○ What is a function, Calling function, Defining a function, Returning values from User-defined functions, Variable scope, Saving state between function calls with the static Statement, More about arguments, Testing for the existence of a function,</li> <li>○ What are Arrays, Creating arrays, Some array related functions,</li> <li>○ Creating an Object, Object inheritance</li> </ul> <p><b>Working with Strings, Date and Time</b></p> <ul style="list-style-type: none"> <li>○ Formatting Strings with PHP, Investigating Strings in PHP, Manipulating Strings with PHP, Using Date and</li> </ul>	<b>8</b>

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	Time functions in PHP, Other String, Date and Time Functions	
<b>3</b>	<b>Working with Forms</b> <ul style="list-style-type: none"> <li>○ Creating a Simple Input Form, 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</li> </ul> <b>JavaScript</b> <ul style="list-style-type: none"> <li>○ Understanding JavaScript, uses of JavaScript, attaching external JavaScript, validating form fields using JavaScript, extending functionalities of form fields using JavaScript</li> </ul> <b>JQuery:</b> <ul style="list-style-type: none"> <li>○ Understanding JQuery, use of JQuery, Local installation, library functions, basics of JQuery : string, numbers, Boolean, objects, array, functions, arguments, context, scope, callback, closures, Built-in-functions.</li> </ul>	<b>10</b>
<b>4</b>	<b>Interacting with MySQL</b> <ul style="list-style-type: none"> <li>○ Learning the MySQL Data Types, Frequently used String functions in MySQL, Using Date and Time functions in MySQL, Using Transactions and Stored Procedures in MySQL. Interacting with MySQL using PHP, MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data, PHPmyadmin interface</li> </ul>	<b>12</b>
<b>5</b>	<b>Working with Cookies, User Sessions</b> <ul style="list-style-type: none"> <li>○ Introducing Cookies, Setting a Cookie with PHP, Deleting a Cookie with PHP Session Function(s) Overview, Starting a Session, Working with Session Variables, Passing Session IDs in the Query String, Destroying Sessions and Un-setting Variables, Using Sessions in an Environment with Registered Users</li> </ul> <b>Working with Files &amp; Directories</b> <ul style="list-style-type: none"> <li>○ Including Files with include(), 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 Opening Pipes to and from</li> <li>○ Processes Using popen(), Executing System Commands</li> </ul> <b>Working with Images</b> <ul style="list-style-type: none"> <li>○ Understanding the Image Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting fancy with Pie Charts, Modifying Existing Images, Image Creation</li> <li>○ from User Input, Using Images Created by Scripts</li> </ul>	<b>12</b>

## **FACULTY OF COMPUTER APPLICATIONS**

- **Course Outcomes**

1. Students will be able to understand the concept of Web Application Design and development
2. Students will be able to develop web application using open source technologies like PHP & MySQL
3. Students will learn PHP scripting language and deploying application on Apache Web Server
4. Students will be able to learn the Apache Web Server configuration
5. Students will be able to learn the MySQL database deployment for web applications

- **Main Reference:**

1. Profession PHP Programming - Wrox
2. PHP & MySQL development – Luke Welling – Pearson Education

- **Other References:**

1. PHP6 and MySQL Bible –Steve Suehring, Tim Converse and Joyce Park – Wiley India Edition.
  2. Head First PHP& MySQL by Lynn Beighley, Michael Morrison, O'Reilly Media
  3. Julie C Meloni, "Sams Teach Yourself PHP, MySQL and Apache All in One" 4<sup>th</sup> edition, Pearson Education
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