

<b>Branch Name:</b>	MCA
<b>Program Code:</b>	CS201
<b>Course Name:</b>	3CS2010207T
<b>Course Code:</b>	Open-Source Technology Using PHP
<b>Pre-requisite Course:</b>	Programming Skills

### Course Objectives:

1. Extend proficiency in development of web applications.
2. Able to carry out the study of web page designing and database fundamentals.
3. Get a good quality understanding of web applications of LAMP.

### Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutorial (T)	Practical (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Marks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-		4	60	40	-	-	100

### Course Contents:

Unit No	Topic	Total Hours	Weightage (%)
1	<p>Web platform/Framework, Web Resources, Web Server, PHP Overview, PHP code standard</p> <p>Flow control and building blocks, Variables, Data types, Operators and expressions, Constants</p> <p>Conditional statements and iterations in PHP:</p> <p><b>Conditional Statements:</b></p> <p>If statement, if ... else, nested if... Else, switch statement.</p> <p><b>Looping:</b> for loop, while loop, do while statement, for each loop statement.</p> <p><b>Working with Functions &amp; Arrays</b> 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, What are Arrays, Creating arrays, Some array related functions, Formatting Strings with PHP, Investigating Strings in PHP, Manipulating Strings with PHP, Using Date and Time functions in PHP, Other String, Date and Time Functions</p>	11	25
2	<p><b>Working with Forms</b></p> <p>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</p> <p><b>Working with files:</b></p> <p>Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from files validating files</p> <p><b>Uses of Java script</b> Attaching external JavaScript, validating form fields using JavaScript, extending functionalities of form fields using JavaScript</p>	11	25
3	<p>Basic SQL Command: Creation of table, Insertion of rows, Select command, Update &amp; Delete command, Replace command, String Function, Date time function, Store procedure, Join</p> <p>Working with database, Learning the MySQL Data Types, Interacting with MySQL using PHP, Connecting to MySQL with PHP using PDO, Retrieving query result, Counting return records, Update , delete, insert and view the records using PHP.</p> <p><b>Working with Regular Expression:</b></p> <p>Introduction, Standard character class, Quantifier, Boundary maker character class, Replace the string using pattern, Split a string.</p>	11	25

<b>4</b>	<p><b>Working with cookie and session:</b> 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 Unsetting Variables, Using Sessions in an Environment with Registered Users Including Files with include(), Session objectives.</p> <p><b>Object Oriented PHP</b> Building a Class and object, Constructors and Destructors, Working with Properties and Functions, Private, Protected, Public modifiers, Inheritance, Interfaces, Abstract class, Static method, Static property, Namespaces. CRUD (Create/Read/Delete/Update) using Class and Object</p>	<b>12</b>	<b>25</b>
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**Text Books:**

1. Learning PHP, MySQL & JavaScript 5th edition Robin Nixon
2. Headfirst PHP & MySQL 1st edition Lynn Beighley
3. PHP and MySQL Web Development 5th edition Luke Welling
- 4.

**Reference Books:**

1. Teach yourself PHP, MySQL and Apache All in One , 5th Edition
2. Learning PHP, MySQL, books by ‘ O’ riley Press.
3. PHP: The Complete Reference , Steven Holzner, McGraw-Hill

**List of Open Source Software/learning website:**

<https://www.geeksforgeeks.org>

<https://www.w3schools.com>

<https://www.codecademy.com>

<https://www.tutorialspoint.com>

**Course Learning Outcomes (CLO): On completion of this course, the students will be able to:**

<b>CLO</b>	<b>Description</b>	<b>Bloom’s Taxonomy Level</b>
CLO1	Familiar with creating of the server side scripting using PHP	2 Understanding 3 Applying,
CLO2	Build Dynamic web pages using server-side PHP programming with Database Connectivity	3 Applying, 6 Creating
CLO3	Aware about the software tool and process like Eclipse IDE, Sublime text, visual studio code	2 Understanding,
CLO4	build website that perform CRUD operation for creating, reading, updating, and deleting data and will show on website	3 Applying, 6 Creating
CLO5	Design responsive form with different input type elements using bootstrap	3 Applying,
CLO6	build a custom solution that catches PHP errors and exceptions and shows a proper error page for them	6 Creating

**Mapping of CLOs with Pos & PSOs**

Course Learning Outcomes	Program Outcomes(POs)												Program Specific Outcomes(PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CLO1	M	M	H	L	M			M	L		M	M	M	L
CLO2	H	H	H	L	H		L	L	M		M	M	H	H
CLO3		L	L		H		L		L		L	L	L	M
CLO4	H	H	H	L	H		L	L	M		M	M	H	H
CLO5	L	L	H	L	M		L	L	L		M	L	H	M
CLO6	M	M	H	M	H		L	M	L		M	M	M	H

**H:High, M:Medium, L:Low**