



**GOVERNMENT OF TAMILNADU**  
**DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI**  
**STATE PROJECT COORDINATION UNIT**  
**(Established under Canada India Institutional Cooperation Project )**

**CURRICULUM**

Course Name	<b>Advanced Web Development using PHP</b>
Course Code	<b>CSE/2020/005</b>
Course Duration	50 Hours
Minimum Eligibility Criteria and Pre-requisites(if any)	ITI/10 <sup>th</sup> /+2/Diploma/Graduates  Basic knowledge of OOPS concept
Course Objectives	<p>Upon completion of this course, participants will be able to:</p> <ul style="list-style-type: none"> <li>• Setup and configure MySQL, PHP, Apache web server development environment.</li> <li>• Select, insert, update and delete data using SQL language.</li> <li>• Understand Object oriented programming paradigm in PHP.</li> <li>• Build a simple, yet functional web application using PHP/MySQL.</li> </ul>
Course Outcomes	<p>At the end of training, the participants will be able to</p> <ul style="list-style-type: none"> <li>• Know about the concepts of PHP and its advantages over other languages.</li> <li>• Use HTML form elements that work with any server-side language.</li> <li>• Create a PHP web page that is unique to each visitor.</li> <li>• Perform various MySQL database queries.</li> <li>• Create a search engine.</li> </ul>
Expected Job Roles	Web Designer in IT

**TEACHING AND SCHEME OF EXAMINATION**

Course Code	Course Name	Hours		Assessment Marks		Duration of Examination
				Min	Max	
CSE/2020/005	<b>Advanced Web Development using PHP</b>	Theory	20	10	20	3 Hours
		Practical	30	40	80	
		Total	50	50	100	

**CSE/2020/005 - ADVANCED WEB DEVELOPMENT USING PHP****DETAILED SYLLABUS**

<b>UNIT NO</b>	<b>MODULES</b>	<b>NO.OF.HOURS THEORY</b>
<b>I</b>	<b>AJAX</b>	
1.1	Introduction to AJAX -Understanding XMLHttpRequest object -Working with Ajax functions-Integrating AJAX with HTML-Integrating AJAX with PHP-Fetching data from database using Ajax	4
<b>II</b>	<b>OOPS CONCEPT IN PHP</b>	
2.1	What is a Class? -What is an Object? - Features of OOP's - Abstraction - Encapsulation - Inheritance - Polymorphism -new keyword - Scope-resolution operator -Access Specifiers (public/private/protected) - Method Overriding - Why PHP does not support Method Overloading? - Constructor -Destructor - autoload() - Functions - How to use & call a function - Abstract Class- Interface - Connecting with MySQL	4
<b>III</b>	<b>PDO</b>	
3.1	What is PDO? –get AvailableDrivers – exec- begin Transaction □ commit - rollback □□ query - Difference between exec & query	4
<b>IV</b>	<b>DATABASE PROGRAMMING USING PHP AND MYSQL</b>	
4.1	Connecting with MySQL using PDO -Inserting Values in table - Transaction - Fetch Values from MySQL - prepare -bindParam - execute –set Attribute	4
<b>V</b>	<b>JOOMLA (CMS)</b>	
5.1	Introduction to JOOMLA, Joomla installation Working with Article Manager, Category Manager, Menu Manager-Working with Template Manager , User Manager, Module Manager-Working with the Extension Manager Media Manager, Global Configuration-Working with inbuilt Component? Customization inbuilt Components and Modules-Using External plug in in joomla website-Converting HTML template in joomla theme-Creating user defined modules and components	4
<b>Total Theory Hours</b>		<b>20</b>
<b>Total Practical Hours</b>		<b>30</b>
<b>Total Hours</b>		<b>50</b>

## **PRACTICALS (30 HOURS)**

1. Create a simple XML Http Request, and retrieve data from a TXT file.
2. Create A xml Http Request with a callback function, and retrieve data from a TXT file.
3. Retrieve all header information of a resource (file).
4. Retrieve specific header information of a resource (file).
5. Demonstrate how a web page can communicate with a web server while a user types characters in an input field.
6. Write a program to define class and object in PHP.
7. Write a program to use keywords \$this and instanceof.
8. Write a program to create constructor and destructor.
9. Write a program to implement inheritance using PHP.
10. Write a program to implement abstract class.
11. Write a program to select data with MYSQL.
12. Write a program to select data with PDO.
13. Write a program to fetch and display data from Mysql.
14. Install and work with JOOMLA.
15. Use External plugin in Joomla website.
16. Create a table product under database inventory and insert 5 records into it. Write a PHP code to access the table and display records in an HTML table.
17. Design an online banking system. Implement necessary validations. Create tables for storing customer, account and transactions. A customer can have more than one account. The account number must be a 5 digit number. Design a menu based application for 1) create account 2) Deposit account 3) withdraw cash 4) Print Account Statement(PDF) .
18. Create a simple website for a college using JOOMLA.

### **HARDWARE REQUIREMENT**

<b>S.NO</b>	<b>LIST OF TOOLS /EQUIPMENTS</b>
1.	Desktop Computer / Laptop computer
2	Printer

### **SOFTWARE REQUIREMENT**

<b>S.NO</b>	<b>LIST OF SOFTWARE</b>
1.	PHP(Front end)
2.	HTML
3.	Java script

### **REFERENCE BOOKS**

<b>S.NO</b>	<b>NAME OF THE BOOK</b>	<b>AUTHOR</b>	<b>PUBLISHER</b>
1	“HTML & CSS – The Complete Reference” Thomas A. Powell(TMh)	Thomas A. Powell	McGraw-Hill Digital
2	“Learning PHP, MySQL and Javascript”	Robin Nixon(SPD)	O'Reilly; 1 edition

## ASSESSMENT AND CERTIFICATION

S.No	Criteria for assessment
1.	A trainee will be assessed based on the performance in End Examination for Theory and Practical conducted internally in the Project Polytechnic College for a duration of 3 hours
2.	A trainee must have 75% of attendance to appear for End examination in Theory and Practical.
3.	The assessment for theory part will be based on the marks scored in the end examination on the knowledge bank of questions (1 word/objective type questions)
4.	The assessment for practical part will be based on the marks scored in the end examination conducted by the Project Polytechnic and assessed by the Examiners approved by Strategic Plan Implementation Committee (SPIC) of the project polytechnic.
5.	The criteria for successful completion of training is every trainee should score 50% of marks in theory and practical examination.
6.	On successful completion of training , Certificate will be issued to the participants by the Directorate of Technical Education through the Project Polytechnic.

## END EXAMINATION

### ALLOCATION OF MARKS

S.No	Description	Max.Marks
1.	Theory Examination	20
2.	Practical Examination	
	a)Procedure	10
	b)Execution	30
	c)Output	20
	d)Record	20
Total Marks		100

## THEORY MODEL QUESTION PAPER

### CSE/2020/005 - ADVANCED WEB DEVELOPMENT USING PHP

(Maximum Marks : 20 )

(N.B: Answer any **twenty** questions)

**20 x 1 = 20 Marks**

1. What are the characteristics of AJAX?
2. AJAX is based on which technologies?
3. What does the XMLHttpRequest object accomplish in AJAX?
4. How can you test the Ajax code?
5. What are different ready state in AJAX?
6. What are the Access Modifiers using in PHP OOPS concept?
7. Why using Extends Clause?
8. Functionality of Constructors are offered in which version of PHP?
9. If one intends to create a model that will be assumed by a number of closely related objects, which class must be used?
10. What is the use of sprintf() function in PHP?
11. How to define a function in PHP?
12. What does PHP interpreter do?
13. Which function is used to compress a string?
14. What is PHP PDO?
15. What is CRUD in PDO?
16. Write a statement to create a table?
17. What is the limitation of print?
18. List any four frameworks in PHP?
19. What are the three main error types?
20. How to destroy a cookie?
21. How to pass variable by value?
22. What is JOOMLA in PHP?
23. Which editor is used in JOOMLA?
24. What is Syndicate Module?
25. Name the templates that are present in JOOMLA?