



बिरसा मुंडा ट्रायबल युनिवर्सिटी Birsa Munda Tribal University

राजपिपला, जि० नर्मदा Rajpipla, Dist. Narmda

Established by Tribal Development Department, Govt. of Gujarat

School of Computer Science

P.G.D.C.A. (Post Graduate Diploma in Computer Applications) Programme

Subject Code & Name: PGDCA204-1- Web Programming using PHP

Teaching And Evaluation Scheme:

Teaching Scheme				Examination Scheme			
Credits				Component Weightage			
				CCE		SEE	
L	T	P	Total	TH	PWE	TH	PWE
4	-	-	4	50%	-	50%	-

Programme Name	P.G.D.C.A.
Semester	2
Course Code	PGDCA204-1
Course Title	Web Programming using PHP
Course Content Type (Th. / Pr.)	Th.
Course Credit	4
Sessions + Lab Per Week	4
Total Teaching/ Lab Hours	60
* 2 Lab = 1 session	

Learning Objectives

Upon successful completion of this course, students will be able to:

- Understand the fundamentals of PHP programming and server-side web development concepts
- Apply PHP programming constructs, forms, sessions, cookies, and file handling techniques to develop dynamic web applications
- Develop database-driven web applications using PHP and MySQL with CRUD operations and search functionalities



- Analyse web application security requirements and integrate AJAX, JSON, and MVC concepts for building interactive and secure web applications

Learning Outcomes

After successful completion of the course, students will be able to:

- Explain PHP syntax, operators, control structures, functions, and basic server-side scripting concepts
- Implement form handling, session management, cookies, arrays, and file operations using PHP
- Design and Develop database-integrated web applications using PHP and MySQL for real-world CRUD operations
- Build secure and interactive web applications using AJAX, JSON, exception handling, input validation, and MVC architecture concepts

CLO-PLO Mapping Matrix:

CLOs/PLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CLO1	3	2	2	2	1	2
CLO2	3	3	3	2	2	2
CLO3	3	3	3	3	2	2
CLO4	3	3	3	3	3	3

Detailed Contents

Unit	Topic/Sub Topic	Teaching Hours
I Basics of PHP	Basics of PHP - Introduction to PHP - Features of PHP - Client-side vs Server-side scripting - PHP installation environment (XAMPP / WAMP) - Basic PHP Syntax - Variables and Constants - Data Types - Operators - Control Statements - Loops - Functions	15
II Forms, Arrays, Sessions and File Handling	Forms, Arrays, Sessions and File Handling - HTML Forms with PHP - GET and POST Methods - Form Validation Basics - Arrays in PHP - String Functions - Date and Time Functions - Sessions	15

	• Cookies • File Handling • File Uploading	
III PHP with MySQL Database	PHP with MySQL Database • Introduction to MySQL with PHP • Database Connectivity • Create Database and Tables • Insert Records • Update Records • Delete Records • Select Records • Search Functionality	15
IV Advanced Concepts and Project Development	Advanced PHP Concepts • Object Oriented Programming in PHP • Classes and Objects • Constructors and Destructors • Inheritance and Encapsulation • Include and Require Files • Exception Handling • Error Handling Techniques Security in Web Applications • Input Sanitization • Form Validation Techniques • SQL Injection Prevention using Prepared Statements • Password Hashing and Verification • Secure Session Management AJAX and JSON Integration • Introduction to AJAX • Client-side and Server-side Communication • AJAX with PHP • Fetch API Basics • JSON Data Format • Encoding and Decoding JSON in PHP • Dynamic Data Loading using AJAX and JSON • Live Search and Form Submission without Page Reload Introduction to Modern Web Architecture • Introduction to MVC Architecture • Basics of REST API Concept	15
Reference Books		
1. Bayross, E., & Shah, S. (n.d.). <i>PHP 5.1 for beginners</i>. SPD Publications. 2. Lerdorf, R., & Tatroe, K. (2002). <i>Programming PHP</i>. O'Reilly Media. 3. PHP Programming Cookbook 4. Beginning PHP 5 by Wrox.		

Web Resources

1. <https://www.php.net/>
2. <https://www.geeksforgeeks.org/php/php-tutorial/>

Required Software(s) (if Any)

XAMPP Server

L:: Lecture, **T::** Tutorial, **P::** Practical

CCE:: Continuous & Comprehensive Evaluation

(CCE theory includes Mid Semester Examination, Assignment, MCQ Quizzes, Seminar, Reflective Notes, Class Participation, Case Analysis and Presentation, Slip Tests (Announced/ Surprised), Attendance etc. or any combination of these)

PWE: Practical Work Examination

(PWE includes Laboratory Practical Work, Project Work, Viva simulation exercise work etc.)

SEE:: Semester End Evaluation