COURSE TITLE	**WEB DEVELOPMENT WITH PHP**
COURSE CODE	**01CE0611**
COURSE CREDITS	**3**

Objective:

1 Main Objective is that Web technology refers to the methods by which End-user devices like computers/mobiles communicate with each other and, Laravel Framework is based on MVC architecture which improves Web based applications and it encourages everyone to use web-based solutions for their requirements

Course Outcomes: After completion of this course, student will be able to:

1 Gain proficiency in PHP programming fundamentals and flow control to build dynamic web applications.

2 To develop dynamic web pages with usage of server-side scripting PHP and MySQL

3 Apply Object Oriented advance concepts & with use of various third-party API in dynamic web developing applications.

4 Understand the Concepts of Laravel Framework based on MVC Architecture.

5 Create and deploy scalable web-based system using Laravel Framework.

Pre-requisite of course: Programming Fundamentals, Web Technology

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	2	50	30	20	25	25

Contents : Unit	Topics	Contact Hours
1	**PHP Overview Flow Control & Programming Fundamentals** Variables, Data types, Operators and expressions, Constants, switching flow, passing information between PHP pages, String Handling, working with functions, Working with Arrays, working with advance program flow control, Handling Session and Cookies in PHP, Saving Form Data using Sessions.	4
2	**File Handling & Database Management with MySQL** Understanding PHP File Permissions, File Reading and Writing Functions, File system and Directory Functions, Learning Data Types, working with variables, Constants and simple expression in PHP, Creation of Database Tables, Using Time and Date function in MySQL, Connecting and Interacting to MySQL using PHP, Transaction and Stored procedures in MySQL	6

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Contents : Unit	Topics	Contact Hours
3	**Object-Oriented Programming in PHP.** Object Oriented Programming with PHP–Classes, Properties, Methods,, Magic Methods: Constructor, Destructor, Getter and Setter, Encapsulation, Inheritance, Data Abstraction, Polymorphism, Advanced OOP Concepts	6
4	**Introduction to PHP MVC Framework - Laravel** Introduction to Laravel and MVC, Environment Setup, Routes, Namespaces, Controllers, Views, Request Response Redirections.	4
5	**PHP MVC Framework - Laravel** Forms, Session, Cookie, Database Connectivity and CRUD operations	8
Total Hours		**28**

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**Practical - 1** Design Wireframes for project Online Laptop Shopping Web Application based on Web Design Principles using tools like, www.cacoo.com & www.gliffy.com, a. Home Page, b. Contact Page, c. Registration Page, d. Login Page	2
2	**Practical - 2** Design Wireframes for project Online Laptop Shopping Web Application based on Web Design Principles using tools like, www.cacoo.com & www.gliffy.com, a. Category Page, b. Product Page, c. Admin Login, d. Product Management (Admin Side)	2
3	**Practical - 3** Design the below mentioned web pages for Online Laptop Shopping Web Application using HTML, CSS and Bootstrap for Lab 3 & 4., a. Home Page	2
4	**Practical - 4** Design the below mentioned web pages for Online Laptop Shopping Web Application using HTML, CSS and Bootstrap for Lab 3 & 4., a. Contact Page, b. Registration Page, c. Login Page	2
5	**Practical - 5** Design the below mentioned web pages for Online Laptop Shopping Web Application using HTML, CSS and Bootstrap for Lab 3 & 4., a. Category Page, b. Product Page, c. Admin Login, d. Product Management (Admin Side)	2
6	**Practical - 6** Create a Database for Online Laptop Shopping Web Application using MySql and finalize Home Page.	2
7	**Practical - 7** Establish database connectivity and implement Registration Page with Server-side validations using PHP.	2

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Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
8	**Practical - 8** Implement following web pages using PHP:, a. Login Page (User and Admin), b. Add a category for the products.	2
9	**Practical - 9** Implement following web pages using PHP:, a. Insert a new product, b. Update existing product, c. Delete existing product	2
10	**Practical - 10** Implement following web pages using PHP:, a. Display the products category wise in Category Page, b. Display detailed information of a single product in Product Page.	2
11	**Practical - 11** a. Setup Laravel project for Book Inventory., b. Implement Session and Cookie in all pages	2
12	**Practical - 12** a. Setup Laravel project for Book Inventory., b. Setup the database in Laravel for Book Inventory. Implement Select Operation with GUI to fetch details of books from Book Inventory.	2
13	**Practical - 13** a. Implement Insert Operation with GUI to add new details of book in Book Inventory., Implement Update Operation with GUI to modify details of any book in Book Inventory.	2
14	**Practical - 14** a. Implement Delete Operation with GUI to remove a book from Book Inventory., Implement Search Operation on Book Name and Author Name with GUI for Book Inventory.	2
Total Hours		**28**

Textbook :

1 Black Book, Web Technologies, Kogent Learning Solutions Inc., Dreamtech Press, 2009

References:

1 The Complete Reference, The Complete Reference, Steven Holzner, Tata McGraw Hill, 2008

2 Laravel: Up and Running, Laravel: Up and Running, Matt Stauffer, O'Reilly Media, 2019

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery

Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
10.00	10.00	30.00	20.00	0.00	30.00

Instructional Method:

1. a) The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc
2. b) The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory and class-room.
3. c) Practical examination will be conducted at the end of semester for evaluation of performance of students in laborator
4. d) Studentswill use supplementary resources such as online videos,NPTEL videos, e-courses, Virtual Laboratory.

Supplementary Resources:

1. https://learninglaravel.net/
2. https://www.tutorialspoint.com/laravel/
3. https://laravel.com/
4. http://www.w3schools.com/

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