

Course Title: **Scripting Language (3 Cr.)**

Course Code: **CACS254**

Year/Semester: **II/IV**

Class Load: **6 Hrs. / Week (Theory: 3 Hrs, Practical: 3 Hrs.)**

### Course Description

This course includes both theoretical as well as practical knowledge of scripting language (client side & server side) along with database connectivity. So that students can develop more effective and efficient web based application packages.

### Course Objectives

The general objectives of this course are to provide fundamental concepts of server side script programming and client side script programming using JavaScript and PHP respectively along with database connectivity.

### Course Contents

#### Unit 1 Client Side Scripting

**15 Hrs.**

**JavaScript:** Introduction, Need of Client Side Scripting Language, Formatting and Coding Conventions, JavaScript Files, Comments, Embedding JavaScript in HTML, Using Script Tag, NoScript Tag, Operators, Control Structures, Array and For Each Loop, Defining and Invoking Functions, Built in Objects, Date Objects, Interacting With The Browser, Windows & Frames, Document Object Model, Event Handling, Forms, Cookies, Handling Regular Expression, Client Side Validations.

#### Unit 2 Server Side Scripting with Database Connectivity

**15 Hrs.**

**PHP(8 Hrs.):** Introduction to Server Side Scripting Language, PHP introduction, Basic PHP Syntax, Comments in PHP, Variables, PHP Operators, Control Structures(If else, switch, all loops), Arrays, For Each Loop, Functions, Form Handling, PHP \$\_GET, PHP \$\_POST, PHP \$\_REQUEST, PHP date () Function, PHP include File, File Handling, File Uploading, PHP Sessions, Sending Emails, PHP Cookies.

**MySQL(7 Hrs.):** Introduction to MySQL, PHP MySQL Connect to a Database, Closing a Connection, MySQL Data Types, MySQL Insert, MySQL Select, MySQL Where Clause, MySQL Delete, MySQL Update, MySQL Aggregate Functions(sum, avg, count etc); MySQL Order by and Group by Clause, MySQL Subqueries, MySQL Joins,

#### Unit 3 Advanced Server Side Scripting

**15 Hrs.**

**Object Oriented Programming in PHP:** Classes and Objects, Defining and Using properties and methods, Constructors and Destructors, Method Overriding, Encapsulation, Inheritance, Polymorphism, Static Members, Exception Handling

**AJAX(Asynchronous JavaScript and XML):** Using PHP, Using PHP + MySQL

**jQuery:** Playing With Elements, Hiding and Unhiding Images, JQuery UI

**JOOMLA:** Introduction To CMS, Installation, Handling Joomla Back End, Customization In Joomla, Introduction To Extensions, Installation and Uses Of Extensions in Joomla, Template Development In Joomla, Artiseer(IDE), Module Development In Joomla, Component Development In Joomla, Introduction To MVC(Model, View and Controller)

**WordPress Administrator Level:** Theme Integration, Creating pages, Managing Posts, Managing Widgets

### Laboratory Works

Laboratory works should be done covering all the topics listed above and a small project work should be carried out using the concept learnt in this course. Project should be assigned on Individual Basis.

### Teaching Methods

The general teaching pedagogy includes class lectures, group discussions, case studies, guest lectures, research work, project work, assignments (theoretical and practical), and examinations (written and verbal), depending upon the nature of the topics. The teaching faculty will determine the choice of teaching pedagogy as per the need of the topics.

### Evaluation

| Examination Scheme  |                |                     |           |       |
|---------------------|----------------|---------------------|-----------|-------|
| Internal Assessment |                | External Assessment |           | Total |
| Theory              | Practical      | Theory              | Practical |       |
| 20                  | 20<br>(3 Hrs.) | 60<br>(3 hrs.)      | -         | 100   |

### Text Books

1. Harvey M. Deitel, Paul J. Deitel & Abbey Deitel, "Internet and World Wide Web: How to Program", 5<sup>th</sup> Edition, Pearson Education, 2012, ISBN: 9780273764021
2. Robin Nixon, "Learning PHP MySQL JavaScript and CSS", 2<sup>nd</sup> Edition, O'Reilly Media, 2012, ISBN 978-1449319267

### Reference Books

1. David Flanagan, "JavaScript: The Definitive Guide", O' Reilly Media, 2011, ISBN: 139780596805524
2. David Sawyer McFarland, "JavaScript & jQuery: The Missing Manual", 2<sup>nd</sup> Edition, Pogue Press, 2011, ISBN: 978-1449399023
3. Luke Welling & Laura Thomson, "PHP and MySQL Web Development", 5<sup>th</sup> Edition, Developer's Library, 2014, ISBN: 978-0321833891