

Course Objectives:

The Course is designed to provide the Basic understanding of Web Technologies. This Course enables the Student to create both Static and Dynamic Web Pages using HTML5,CSS,JAVASCRIPT, AJAX and PHP. Extra emphasis is placed on building Mobile Responsive Websites using various frameworks like BOOTSTRAP.

UNIT I

Web Terminologies: Internet, WWW, Web Browser, Understanding how Web Browser Communicate with Web Server,Web Server, Uniform Resource Locator (URL), Hyper Text Transfer Protocol Secure (HTTPS).

HTML5 Introduction:Structure of HTML5 Program, Heading Styles, Text Styles, Other Text Effects;*List*: Definition, Creating Ordered and Unordered Lists, Adding Images, Creating Tables, Multimedia, Graphics;*Form*: Tags, Elements, Input Types, Text Area, Checkboxes, Submit Button, Frames, Audio Tag, Video Tag, i-frame, Form Validation, Designing Static Web Pages with HTML5.CSS 3.0:Concepts and its Properties i.e. Border, Backgrounds, Fonts, Text Effects, Buffering, Web Log, Web Cache Positioning, CSS Selectors, CSS List, CSS Tables, CSS Menu Design.Using BOOTSTRAP to build mobile responsive website.

UNIT II

JavaScript Introduction:Variables, Obtaining User Input, Operators, Control Structure, Looping Constructs, Break and Continue Statements, User Defined Functions, Recursion and Iterations, Array Declaration and Memory Allocation, Passing Array as an Argument to Function, Basic Form Validation in JavaScript;**JavaScript Objects**: Date, String, Boolean, Window, Document, Cookies, Document Object Model (DOM), Event Handling using JavaScript.

UNIT III

PHP Introduction:Installing and Configuring PHP and MYSQL, Variables, Basic Data Types, Operators, Constants, Array, Looping with Associative Array using each() and foreach(), Objects, Strings Processing,Form Processing, Connecting to Database, Performing Basic Database operations (Insert ,Update , Delete , Select etc.), Setting Query parameter, Executing Query Join (Self Join, Inner Join, Outer Join, Cross Join),Cookies, Create Session, Accessing Data from Database into HTML page.

UNIT IV

AJAX Introduction: Creating Simple Ajax Application, Create an XMLHttpRequest Object, Interacting with the Web Server Using XMLHttpRequest Object, Difference between Ajax and Non-Ajax Applications.

Working with PHP and AJAX: Process Clients Requests, Accessing Files Using PHP, Implementing Security and Accessibility in AJAX; Application: Introduction, Secure AJAX Applications.

Text Books:

1. Kogent Learning, Web Technologies: HTML, JavaScript, PHP, JAVA, JSP, XML, AJAX – Black Book, Wiley India Pvt. Ltd.
2. Deitel H.M., Deitel P.J., Internet & World Wide Web: How to Program, Pearson Education.

Reference Book:

1. Boronczyk Naramore, Beginning PHP, Apache, MYSQL Web Development, Wiley India Pvt. Ltd.
2. Thomas Powell, Ajax: The Complete Reference Book.

Course Outcomes:

By the end of the Course, Student will be able to:

CO1: understand about Basic Terminologies of Web Development.

CO2: design Web Pages using HTML5 and CSS.

CO3: design Mobile Responsive Website Using BOOTSTRAP.

CO4: understand Object and Data Validation Using JavaScript.

CO5: apply JavaScript methods in building various Interactive UI Projects.

CO6: build Dynamic Website using Server Side PHP Programming and Database Connectivity.

CO7: create Web Application using AJAX.

NOTE: In Each theory paper. Nine questions are to be set. Two questions are to be set from each Unit and Candidate is required to attempt one question from each unit. Question number nine is Compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all five questions are to be attempted.