MIT ADT University **Third Year of Computer Science and Engineering** Web Technology Lab		
Teaching Scheme	**Credit Scheme**	**Examination Scheme and Marks**
Lecture:		**Continues Assessment (PR):** **40 Marks** **End_Semester_Examination (PR):** **60 Marks**

Prerequisites:
- Fundamentals of Programming and Networking

Companion Course :   ---

Course Objectives:
The main objectives of the course are to:
- To introduce HTML and CSS language for designing of web pages
- To introduce PHP language for server side scripting
- To introduce Server side programming with Java Servlets and JSP
- To introduce Client side scripting with Javascript and AJAX.

Course Outcomes:
On completion of the course, learner will be able to–

Co_1: Develop the modern web pages using the HTML and CSS features with different layouts as per need of applications.

Co_2: Use the JavaScript to develop the dynamic web pages.

Co_3: Use server side scripting with PHP to generate the web pages dynamically using the database connectivity.

Co_4: Develop the modern Web applications using the client and server side technologies and the web design fundamentals

Course Contents		
Unit I	**INTRODUCTION TO WWW, HTML and CSS**	

Introduction to web technology, Internet Standards – Introduction to WWW, WWW Architecture , SMTP , POP3 File Transfer Protocol, Overview of HTTP, HTTP request , response , Generation of dynamic web pages ,static web pages.
Markup Language (HTML): Introduction to HTML - Formatting and Fonts - Commenting Code – Anchors – Backgrounds – Images – Hyperlinks – Lists – Tables – Frames - HTML Forms.
CSS: Introduction; Levels of style sheets; Style specification formats; Selector forms; Property value forms; Font properties; List properties; Color; Alignment of text; Background images.

*Mapping of Course Outcomes for Unit I	CO1	
Unit II	**JAVASCRIPT AND ADVANCED JAVASCRIPT**	

Overview of JavaScript, using JS in an HTML (Embedded, External), Data types, Control Structures, Arrays, Functions and Scopes, Events, Objects in JS, DOM: DOM levels, DOM Objects and their properties and methods, Manipulating DOM.

*Mapping of Course Outcomes for Unit II	CO2
Unit III	**PHP**	

PHP: Introduction to PHP, Features, sample code, PHP script working, PHP syntax, conditions & Loops, Functions, String manipulation, Arrays & Functions, Form handling, Cookies & Sessions, using MySQL with PHP, AJAX: Introduction, Working of AJAX, AJAX processing steps, coding AJAX script. Introduction to JSON, LAMP, LEMP.

*Mapping of Course Outcomes for Unit III	CO3
Unit IV	**JQUERY AND BOOTSTRAP**	

JQuery: Introduction to JQuery, Loading JQuery, Selecting elements, changing styles, creating elements, appending elements, removing elements, handling events. Bootstrap: Introduction of Bootstrap, Typography, Tables, Images, Buttons, Grid Structure-Type of columns, Forms, Jumbotron, well, Panel, Navbar, NavTab, Carousel, Responsive Web Page, modal and scrollSpy

*Mapping of Course Outcomes for Unit IV	CO4
Unit V	**JSP**	

Introduction to Server Side technology and TOMCAT, JSP: Introduction to JSP, advantages of JSP over Servlet, elements of JSP page: directives, comments, scripting elements, actions and templates, JDBC Connectivity with JSP, Ruby on rail.

*Mapping of Course Outcomes for Unit V	CO4
Learning Resources	

Text Books:
- Programming the World Wide Web – Robert W. Sebesta, 4th Edition, Pearson Education, 2008.
- Harvey & Paul Deitel & Associates, Harvey Deitel and Abbey Deitel, "Internet and World Wide Web - How To Program", Fifth Edition, Pearson Education, 2011.
- Adam Bretz & Colin J Ihrig, ―Full Stack Javascript Development with MEAN‖, SPD, ISBN-13: 978-0992461256
- Giulio Zambon, ― Beginning JSP, JSF and Tomcat‖, Apress Publication, ISBN-10: 1430246235; ISBN-13: 978-1430246237

Reference Books:
- Learning PHP, MySQL & JavaScript: With jQuery, CSS & HTML5, Robin Nixon,5th Edition,Oreilly

PO/CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12
@The CO-PO Mapping Matrix												
CO1												
CO2												
CO3												
CO4												
CO5												

Lab Experiment List

1	Design a Company Registration Form with CSS styles that includes all of the form tag's features. Show the relevant Form output in a compatible browser
2	a] Create an HTML script for Coffee: shop online web content utilizing HTML tags and CSS capabilities. Use a coffee cup and relevant images to enhance the presentation. Provide a coffee type selection option, as well as a rate for the coffee type pick. Tables should be used whenever possible. b] Create an HTML Script for a Car Service Center utilizing HTML tags and CSS features: Enhance content with numerous car workshop photographs and car accessories, as well as details on various car servicing packages. c] Create an HTML Script for a Flower Shop utilising HTML tags and CSS features: CSS Selectors with Optional Beautification demonstrate output with a variety of floral photos and the available flower stock in the floweriest shop. Provide animation using CSS.

3	Write a JavaScript code to take inputs from user and display that inputs in following pattern *"Hello ……… Welcome To World of JavaScript"*. Write a JavaScript code to perform arithmetic operation by taking values from users (Add,Sub, Mul,Div)(1. 4 Button, 2.Dropdown)
4	a] Create one button on every click of button different colors should be applied to background. Create one button on every click of button different images should be applied. b] Declare a Javascript String array of colors say colors = ["Red", "Green", "Blue"] Accept a value from the user and add it to the array if the value is not present in the array. c] Write a JavaScript code to apply font color and background color to Heading from dropdown, if font color and background color is same no changes should be reflected. d] Create an array using JavaScript and display the occurences of a specific character [For example; arr = ['a, 'b', 'a', 'c', 'z'] Output should be occurrences of a is 2]

5	A] Write a Javascript code to append static row to the table on click of button
	
	B] Write a Javascript code to append anchor tag that redirects to the new page
	
	C] Write a Javascript code to change the color of button with following events
	
	   1.Onmouseover
	
	   2.Onmouseout
	
	   3.Onclick
	
	D] Write a Javascript code to change the background color of page onclick of array elements displayed as a list.

6	Write a Javascript to create shopping applications which adds the books in cart, updates the existing books, delete the book and display the same. Create proper UI for the same.

7	A] Write a PHP script to take number from user and print the table of that number. B] Write a PHP script to display numeric, associative and multidimensional array with for each loop.
8	Design a shopping application form with following fields[itemID, itemName, itemQuantity] Write a PHP script to add and display the items.
9	Create the database table with the entries mentioned: [rollNo, studName, studDept, passingYear, classGrades] Grades should be either {First Class, Second Class, Pass} Design the UI as given below and show the appropriate result through PHP script years: [2014 ▾] ○ first class ○ second class ○ All [display]
10	Write a JQuery code to give animation to div on click of button.
11	Write a JQuery code to add dynamic element on page on click of button
12	Display a popup on mouse over of link and add two text boxes and button to that popup.
13	Create a form that allows you to select a locale and displays the date in a manner appropriate to the locale using JSP.