

NIRMA UNIVERSITY

Institute:	Institute of Technology
Name of Programme:	B.Tech.(CSE), Integrated B.Tech. (CSE)-MBA
Course Code:	1CSXXXX
Course Title:	Web Programming
Course Type:	Pre-Requisite
Year of Introduction:	2022-23

L	T	Practical Component				C
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Course Learning Outcomes (CLO):

At the end of the course, students will be able to –

1. Apply HTML and CSS concepts to design static web pages. (BL-3)
2. explain various concepts related to dynamic web pages and validate them using JavaScript. (BL-2)
3. outline the concepts of jQuery and implement the web applications. (BL-4)
4. design and deploy web applications on web servers. (BL-5)

Syllabus:

Unit	Syllabus
Unit-I	Web Development Basics: Introduction to Web, Client and Server Concepts, Types of Web Developers, Requirements and Process of Web Development
Unit-II	HTML & CSS: Basic formatting tags, List, Tables, images, forms, Types of cascading style sheets, Style Specification Formats.
Unit-III	JavaScript: Introduction to JavaScript, Variables and Objects, Decision Making Statement, Loops, Arrays, Functions, Document Object Model (DOM), Event Model
Unit-IV	jQuery: jQuery Introduction, jQuery Syntax, jQuery Selectors, jQuery Events, jQuery Effects.
Unit-V	AngularJS: Introduction and Primitives of Angular JS - Modules, Directives, Model, Controllers, Filters, Events and Forms.
Unit-VI	Web Servers and Server-side Scripting: Configuration, Web Hosting and Deployment, Securing Websites, Scripting with PHP - Variables, Data Types, Functions, Forms

Self-Study: The self-study contents will be declared at the commencement of semester. Around 10% of the questions will be asked from self-study contents.

- Suggested Readings/References:
1. Harvey M. Deitel, Paul J. Deitel & Abbey Deitel, Internet and World Wide Web: How to Program, 5th Edition, Pearson Education.
 2. Laura Lemay, Rafe Colburn, Jennifer Kyrnin, Mastering HTML, CSS & Java Script Web Publishing, BPB Publications
 3. HTML 5 Black Book: CSS3, Javascript, XML, XHTML, AJAX, PHP and jQuery, DreamTech Press
 4. Nixon, R., Learning PHP, MySQL & JavaScript: with jQuery, CSS & HTML5, 4th Edition, O'Reilly.
 5. Valeri Karpov and Diego Nettom, Professional AngularJS, O'Reilly

Suggested List of Experiments:	S No	Title	Hours
	1	Design a web page to illustrate the various HTML tags.	02
	2	Write CSS code to demonstrate Inline, Internal and external cascading style sheet.	02
	3	A) Write a script that reads in two integers and determines and outputs HTML text displays whether the first in a multiple of the second. B) Create a JavaScript that merge two arrays without duplicating elements. C) Implement a JavaScript function that takes a string as an argument which has lower and upper-case letters and converts upper case letters to lower case, and lower-case letters to upper case.	04
	4	A) Write a JavaScript code to display the denomination of the amount deposited in the bank in terms of 100's, 50's, 20's, 10's, 5's, 2's and 1's (eg. If deposited amount is Rs.163, the output should be 1-100's, 1-50's, 1-2's and 1-1's). B) Design a web page which have simple guessing number game. Write a JavaScript function which generate random number in between 1 to 200. Give user 5 attempts to guess the random number. If user guess it correctly then change the background color of web page to yellow and if user fail to guess the number after the 5 attempts, then change the background color of web page to orange.	04
	5	Design a shopping website that provides information about various products to the visitor. A visitor can register to the shopping website if he wishes to purchase some item(s) now or in future. The registration form should collect necessary information of a visitor in order to deliver the product if order	

- placed. Moreover, design a web page to place orders by the registered user. Validate all the fields of the registration form and order form. 04
- 6 Write programs/scripts for implementing basics of jQuery Syntax and jQuery Selectors. 02
- 7 Write programs/scripts for implementing jQuery Events and jQuery Effects. 04
- 8 Write an AngularJS script to display list of courses stored in an array on click of button using ng-click. Also demonstrate ng-init, ng-bind, directives in AngularJS. 02
- 9 Create a Single page application using AngularJS for customer registration visiting a departmental store. Form should consist of fields such as name, contact no., gender, favourite item (to be selected from list of items with quantity) and suggestions. Display the bill with total number of items selected and total amount to be paid. 04
- 10 Web application with PHP scripting and deployment on open source (Apache, Nginx) web servers. 02

Suggested
Case List

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