BACHELORS WITH APPLIED COMPUTING AS MINOR

(FOR STUDENTS WITH MAJOR IN COMPUTER APPLICATIONS / INFORMATION TECHNOLOGY)

2nd SEMESTER

ACP222N: APPLIED COMPUTING _ WEB DESIGNING

CREDITS: 4 + 2

UNIT-I

Markup Languages, Introduction to HTML5, Development Environment Setup, Anatomy of an HTML Tag, Basic Structure of HTML Document, HTML Content Models, Meta-Tags, Formatting Tags, Text Level Formatting, Lists, Hyperlinks, Image and Image Maps, Table Tags, HTML Comment tag. Block and inline elements, redirecting to another URL, creating division-based layouts. Forms: creating basic form, using check boxes, textboxes and option buttons, input validation and additional input types in HTML5, HTML multimedia basics. HTML DOM structure.

UNIT II:

Need for CSS. Different approaches to style sheets, Anatomy of a CSS Rule. Element, Class, and ID Selectors. Combining Selectors, Pseudo-Class Selectors. Style Placement, Conflict Resolution, Styling Text Wildcard Selectors (*, ^ and $) in CSS. Web fonts. Working with Browser Developer Tools.CSS Box Model: - background, margin, padding, Float and z-index properties, Relative and Absolute Element Positioning. Basic Introduction to Bootstrap Framework.

UNIT-III

Introduction to Javascript, Different approaches to place Javascript code in an HTML File. JS identifiers, Reserved Words, Optional Semicolons, Comments, Literals. Types, Values and Variables: Numbers, Text, Booleans. Nulls and undefined. Type Conversions. Variable Declaration and Assignment. Const, let and var.
Expressions and Operators: Arithmetic, Relational, Logical, Assignment and Evaluation Expressions. Conditionals: if, else if and switch. Loops: while and for. Break, continue, return and yield.
Functions: Defining, Invoking, Function Arguments and Parameters. Functions as Values.

UNIT-IV

Objects: Creating Objects, Querying and setting Properties, Deleting and Testing Properties. Serializing Objects. Arrays: Creating, Reading, Writing arrays. Array length. Iterating Arrays, Strings as Arrays.
The Document Object Model, Program Input and Output, Browser Events and Event Handling.

RECOMMENDED BOOKS:

1. Jennifer Robbins - Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics (5e, 2018, O'Reilly Media)
2. Terry Felke-Morris - Web Development & Design Foundations with HTML5 (8e, 2017, Pearson)
3. Eric Meyer, Estelle Weyl - CSS The Definitive Guide (4e, 2018, O'Reilly Media)
4. David Sawyer McFarland - CSS The Missing Manual (4e, 2015, O'Reilly Media)
5. David Flanagan - JavaScript_ The Definitive Guide (7e, 2020, O'Reilly Media)
6. Cay S. Horstmann - Modern JavaScript for the Impatient (Addison-Wesley Professional, 2020)

WEB DESIGNING LAB

1. Design a Home page for your college
2. Design a web page with links to different pages and allow navigation between web pages.
3. Design a web page using Images
4. Use a HTML table to design a page with a header, sidebar, main content and footer.
5. Design a user registration form using different HTML form controls
6. Design a web page with buttons that can handle different page events using JS event handlers.
7. Use Java Script to change the image displayed in an img tag when a button on the page is clicked.
8. Use bootstrap to add formatting to your home page.
9. Write a JavaScript program with proper GUI to perform unit conversion using the onChange event.
10. Design the interface of a login page using HTML and CSS.
11. Design a simple "To Do" Application using HTML/CSS/JavaScript.
12. Design Basic Calculator using HTML/CSS/JavaScript.
13. Design and develop a simple "Tic-Tac-Toe Game" using HTML/CSS/JavaScript.
14. Remove a specific table row using Java Script.
15. Set value in input text using Java Script.
16. Set a value in a span using Java Script.