

# Government PG College, Ambala Cantt

Course File(Session 2023-24)

Name of Professor: Dr. Shruti

Class: BTM/2nd Semester

Subject code and Name: B23-CSE-204 Web Development Fundamentals

## SYLLABUS

**Maximum Marks: 75**

**External: 55(35(T)+20(P))**

**Internal: 20**

**Time: 3 hours**

**Note:** The examiner will set a total of nine questions. Out of which, the first question will be compulsory. The remaining eight questions will be set from four units selecting two questions from each unit. The examination will be of three-hour duration. All questions will carry equal marks. The first question will comprise short answer-type questions covering the entire syllabus. The candidate will have to attempt five questions, selecting one from each unit. The first question will be compulsory. The practicum will be evaluated by an external and an internal examiner. The examination will be of three-hour duration.

### UNIT – I

Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents, Web Clients, Web Servers, Web Browsers; Hypertext Transfer Protocol, URLs; Searching, Search Engines and Search Tools.

### UNIT – II

Web Publishing: Hosting website; Internet Service Provider; Planning and designing website; Web Graphics Design, steps for Developing website ,Creating a Website and Introduction to Markup Languages (HTML and DHTML),

### UNIT – III

HTML Document Features & Fundamentals, HTML Elements, Creating Links; Headers; Text styles; Text Structuring; Text colour and Background; Formatting text; Page layouts, Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons; Check Boxes; Text Boxes, HTML5

### UNIT – IV

Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types, Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning, and other useful Style Properties; Features of CSS3. Introduction to Client–Side Programming

#### **Recommended Books/e-resources/LMS:**

- Raj Kamal, Internet and Web Technologies, Tata McGraw-Hill.
- Ramesh Bangia, Multimedia and Web Technology, Firewall Media.
- Thomas A. Powell, Web Design: The Complete Reference, Tata McGraw-Hill
- Wendy Willard, HTML Beginners Guide, Tata McGraw-Hill.
- Deitel and Goldberg, Internet and World Wide Web, How to Program, PHI
- David Flanagan, JavaScript: The Definitive Guide: The Definitive Guide.

**Kogent Learning, Web Technologies: HTML, JavaScript, PHP, Java, JSP, XML, AJAX – Black Book, Wiley India Pvt. Ltd.**

## COURSE OBJECTIVES

The course objectives outlined are as follows:

The objectives of a web designing fundamentals course typically focus on providing students with a solid understanding of the principles and practices involved in creating effective and visually appealing websites. Here are some common objectives for such a course:

1. **Understanding Web Technologies:** To introduce students to the foundational technologies used in web design, including HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), and JavaScript.
2. **Website Structure and Layout:** To teach students how to structure and layout a website effectively, including principles of navigation, organization of content, and use of grids and frameworks.
3. **Visual Design Principles:** To familiarize students with basic design principles such as typography, color theory, contrast, balance, and alignment, and how they apply to web design.
4. **Responsive Web Design:** To introduce students to the concept of responsive web design and teach them how to create websites that adapt and respond to different devices and screen sizes.
5. **User Experience (UX) Design:** To emphasize the importance of user-centered design principles in creating intuitive and user-friendly websites, including usability testing and accessibility considerations.
6. **Multimedia Integration:** To instruct students on how to integrate multimedia elements such as images, videos, and audio into web pages effectively while considering factors like file size, compression, and optimization.
7. **Interactive Web Elements:** To enable students to incorporate interactive elements such as forms, buttons, sliders, and animations using HTML, CSS, and JavaScript.

## COURSE OUTCOMES

After the successful completion of the course, students will be able to:

Course outcomes in a web designing fundamentals subject reflect the specific abilities and knowledge students should gain upon completing the course. Here are some possible course outcomes for a web designing fundamentals subject:

1. Learn the basics of web development.
2. understand different types of web pages and websites.
3. Implement HTML and CSS for web page designing.
4. Understand the design of web crawlers and search engines.

## Lesson Plan

| Week No | Scheduled Dates | Topics to be covered   |
|---------|-----------------|--|
| 1       | 16-17 February  | Introduction to Internet and World Wide Web (WWW); Evolution and History of World Wide Web, Web Pages and Contents,  |
| 2       | 23-24 February  | Web Clients, Web Servers, Web Browsers;  |
| 3       | 1-2 March       | Hypertext Transfer Protocol, URLs, Searching, Search Engines and Search Tools  |
| 4       | 8-9 March       | Test, Web Publishing: Hosting website; Internet Service Provider; Web Graphics Design  |
| 5       | 15-16 March     | Planning and designing website; steps for Developing website, Creating a Website   |
| 6       | 22 March        | Introduction to Markup Languages (HTML and DHTML), Test, HTML Document Features & Fundamentals, HTML Elements, Working with Radio Buttons; Check Boxes; Text Boxes, HTML5              |
| 7       | 5-6 April       | Creating Links; Headers; Text styles; Text Structuring; Text colour and Background; Formatting text; Page layouts, Images;   |
| 8       | 12-13 April     | Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms and Menus;   |
| 9       | 19-20 April     | Working with Radio Buttons; Check Boxes; Text Boxes, HTML5, Test, Introduction to CSS (Cascading Style Sheets): Features, Core Syntax, Types   |
| 10      | 26-27 April     | Style Sheets and HTML, Style Rule Cascading and Inheritance, Text Properties, CSS Box Model, Normal Flow Box Layout, Positioning, and other useful Style Properties; Features of CSS3. |
| 11      | 3-4 May         | Introduction to Client-Side Programming  |
| 12      | 10-11 May       | Revision and Practice  |
| 13      | 17-18 May       | Revision and Practice  |