

<b>COURSE TITLE</b>	<b>WEB TECHNOLOGY-I</b>
<b>COURSE CODE</b>	<b>05CA0105</b>
<b>COURSE CREDITS</b>	<b>4</b>

**Objective:**

- 1 Students will be able to understand and use the fundamental technologies behind web development, particularly HTML.
- 2 Mastering various CSS properties, selectors, and techniques to create responsive and visually appealing web designs.
- 3 Students will learn to use Bootstrap, a popular front-end framework, to create attractive and responsive web designs.
- 4 Students will be able to combine their knowledge of HTML, CSS, and Bootstrap to build comprehensive and visually appealing web pages.
- 5 Students will be capable of developing both static and dynamic websites. They will learn the differences between static and dynamic content, how to create static web pages using HTML and CSS, Bootstrap.

**Course Outcomes:** After completion of this course, student will be able to:

- 1 Students will demonstrate the ability to create well-structured and semantically correct HTML documents. To learn about website structure design.
- 2 Students will effectively apply various CSS properties, selectors, and techniques to design responsive and visually appealing web pages.
- 3 Students will utilize Bootstrap to develop responsive and visually appealing web designs.
- 4 Students will integrate their knowledge of HTML, CSS, and Bootstrap to build comprehensive web pages.
- 5 Students will develop both static and dynamic websites. They will understand the differences between static and dynamic content, and will create static web pages using HTML, CSS, and Bootstrap.

**Pre-requisite of course:**NA

**Teaching and Examination Scheme**

<b>Theory Hours</b>	<b>Tutorial Hours</b>	<b>Practical Hours</b>	<b>ESE</b>	<b>IA</b>	<b>CSE</b>	<b>Viva</b>	<b>Term Work</b>
2	0	4	50	30	20	0	50

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<p><b>Introduction to Web &amp; HTML</b>            What is Web? What is WWW, Web site - Static and Dynamic web site, Web application - Client-server, Web development Technologies- Html, CSS, JS, XML, Servlet &amp; JSP, PHP and Ajax, Introduction to Html, Html structure, Page Layout Semantic Elements, Html element/tag &amp; attributes, Designing simple page - Html tag, Head tag, Body tag, More Html tags - Anchor tag, Image tag, Table tag, List tag, Frame tag, Div tag, Html forms - Input type, Text area, Select, Button, CheckBox, Drop Down, HTML 5 Global Attributes, Displaying a Search Input Field, Contact Information Input Fields, Utilizing Date and Time Input Fields, Number Inputs, Selecting from a Range of Numbers, Selecting Colors Creating an Editable Drop-Down Requiring a Form Field, Autofocusing a Form Field. Adding Video &amp; Audio to a page Supported Audio &amp; Video format</p>	15
2	<p><b>CSS &amp; BOOTSTRAP</b>            Introduction to CSS, Syntax, and Selectors. Embedding CSS to HTML, Types of CSS, Formatting fonts, Text with decoration, alignments, and background color, Borders and outline, Box Properties – margin, padding, Link, List, Table, Display, Min-Max Height, Width, transform, Animation, Pagination, Form, Media Queries, What is Bootstrap Framework Why Bootstrap, Major Features of Bootstrap, What are Bootstrap Components, Bootstrap Grid, Colors, Tables, Images, Alerts. Buttons, Progress Bars, Spinners, Paginations, List, List Groups, Cards, Nav Bar, Carousel, Popovers, Forms with checkbox, radio, Rang, Inputs, Floating Labels</p>	15
<b>Total Hours</b>		<b>30</b>

**Suggested List of Experiments:**

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<p><b>Unit 1</b></p> <p>Create a basic HTML document structure with the necessary tags., Create a basic HTML document and Add a title to your HTML webpage., Create a heading (h1) that introduces the topic of your HTML webpage., Include a paragraph (p) that provides some information about your topic in an HTML document. , Create a basic HTML document structure with the necessary tags., Add a title to your webpage &amp; • Create a heading (h1) that introduces the topic of your webpage., Include a paragraph (p) that provides some information about your topic., Add an image (img) into your HTML document related to your topic., Create an unordered list (ul) of at least three items related to your topic &amp; • Add a hyperlink (a) to an external website that provides more information about your topic., Create a table (table) to organize some data related to your topic into HTML document., In your HTML document Embed a YouTube video related to your topic using the appropriate tag. • Use CSS to style your webpage, changing the font, colors, and layout., Create a form (form) with input fields (input) for collecting user information related to your topic., Implement basic accessibility features such as alt text for images and labels for form inputs., Use semantic HTML elements such as header, footer, nav, and section to structure your webpage., Experiment with different HTML elements and attributes to understand their functionality.</p>	30

**Suggested List of Experiments:**

Contents : Unit	Topics	Contact Hours
2	<b>Unit 2</b> Style a paragraph element to have a different font family, font size, and font color., Create a CSS animation to make an element move or change its properties (e.g., fade in/out, slide, rotate)., Style a form to have custom borders, padding, and background color for its input fields and submit button., Style a heading element (h1) to have a different font family, font size, and font color., In your HTML document add padding and background color to a div element, Center align text within a paragraph element (p)., Change the background color and font color of a button element., In an HTML document, style an unordered list (ul) to have square bullet points and a different font size., In your HTML document create a border around an image element (img) with a specific color and width., In your HTML document apply a hover effect to a link (a) to change its color when hovered over in your HTML document. , In an HTML document, set the width and height of an input field (input) within a form, and style a paragraph element to have italic text., In your HTML document, Add a margin around a block-level element (div) to create space between it and surrounding elements, and apply a background image to the entire webpage body. • Use CSS to hide an element on the web page created by you (display: none;) in an HTML document., Create a basic Bootstrap template with the necessary HTML structure and Bootstrap CDN links. • Implement a Bootstrap grid system to create a responsive layout with rows and columns in the webpage., Use Bootstrap classes to create a navigation bar with dropdown menus in your webpage. • Style buttons using Bootstrap classes for different styles (primary, secondary, success, etc.) in the webpage., Apply Bootstrap utility classes to style typography (e.g., text alignment, font size, font weight). • Use Bootstrap forms and form components to create a simple contact form with input fields and a submit button., Implement a Bootstrap carousel to display a slideshow of images or content. • Use Bootstrap modal components to create a pop-up dialog box with custom content., Create a card layout using Bootstrap cards to display information in a visually appealing manner. • Apply Bootstrap responsive classes to hide or show elements based on screen size (e.g., d-none, d-md-block)., Use Bootstrap utilities to create spacing and margin between elements (e.g., m-2, mt-4). • Implement a Bootstrap navbar with a toggle button for mobile navigation., Create a responsive Bootstrap table with striped rows and a hover effect. • Use Bootstrap alerts to display success, warning, or error messages on the webpage.	30
<b>Total Hours</b>		<b>60</b>

**Textbook :**

- 1 HTML and CSS: Design and Build Websites, Jon Duckett, Wiley, 2011

**References:**

- 1 HTML, XHTML & CSS Bible, HTML, XHTML & CSS Bible, Steven M.Schafer, Wiley, 2010
- 2 HTML Black Book, HTML Black Book, Steven Holzner, Dreamtech, 2000
- 3 Beginning Java Script with DOM scripting and Ajax, Beginning Java Script with DOM scripting and Ajax, Christian Heilmann, Apress, 2010

**Suggested Theory Distribution:**

The suggested theory distribution as per Bloom’s taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
<b>Remember / Knowledge</b>	<b>Understand</b>	<b>Apply</b>	<b>Analyze</b>	<b>Evaluate</b>	<b>Higher order Thinking / Creative</b>
20.00	30.00	25.00	15.00	10.00	0.00

**Instructional Method:**

- 1 Board work
- 2 PPT
- 3 Demo

**Supplementary Resources:**

- 1 <https://www.w3schools.com/html/>
- 2 <https://www.w3schools.com/css/default.asp>
- 3 [https://www.w3schools.com/bootstrap/bootstrap\\_ver.asp](https://www.w3schools.com/bootstrap/bootstrap_ver.asp)
- 4 <https://developer.mozilla.org/en-US/docs/Web/HTML>
- 5 <https://developer.mozilla.org/en-US/docs/Web/CSS>