

**FACULTY OF COMPUTER APPLICATIONS**  
**Bachelors of Computer Applications**

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- **Sem.** : 1
- **Subject Code** : 05BC3104
- **Subject** : Basics of Web Development
- **Course Objectives** :
  1. Students will be able to design and develop an interactive website using HTML5.
  2. Students will be able to understand different elements of web-application.
  3. Analyze and apply CSS to make website more presentable.
  4. Provide facility to design an interactive website using JavaScript.
  5. Students can make their web site live using different hosting sites.

**Prerequisites:** -

Unit No	Topics Covered	No of lectures required
1	<b>Internet &amp; WWW</b> Introduction, evolution and history, types of internet: internet, intranet & extranet, Internet Applications, Internet tools, Internet Protocols: TCP/IP, FTP, TELNET, HTTP, SMTP, web browser, web server, web pages, search engines, video conferencing, working with an E-mail	08
2	<b>Introducing HTML5</b> Difference between traditional HTML4 & HTML5, Introduction to HTML5, HTML5 document structure, HTML5 tags & attributes: Text formatting tags, List tags, adding background, special characters, links, anchor tag, image tag, working with image map	10

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<b>3</b>	<b>Advanced HTML5</b> Creating and working with tables, forms and frames, adding multimedia to web page using audio and video, Canvas, SVG, Drag/Drop, Geo-location, iframes, URL Encode, Quick List, Semantic, Web Semantic, Application Cache, SSE(Server Sent Event)	<b>10</b>
<b>4</b>	<b>CSS3 and Bootstrap Framework</b> Introduction, types of CSS, Box Model and Text Flow, Grouping or Nesting, Pseudo-class, Pseudo-element, Navigation Bar, Image Manipulation, Media Types, Attribute Selectors, Borders, Gradients, Text Effect, Animations, Introduction of Bootstrap framework, Bootstrap Grids, Bootstrap Theme, Bootstrap CSS Reference	<b>12</b>
<b>5</b>	<b>JavaScript &amp; Hosting a Web-Site</b> Introduction, introduction to Java script, variables, java script operators, conditional statements and loops, JavaScript break and continue statement, Dialog boxes, JavaScript Arrays, JavaScript Events, JavaScript User Define Function, JavaScript Built in Functions, JavaScript Cookies, publishing a web-site	<b>10</b>

**Course Outcomes:**

1. Students will be able to design dynamic website.
2. Students will be able to apply different HTML5 tags to develop user friendly web-site.
3. Students will be able to apply CSS to make website presentable.
4. Students will be able to develop website using multimedia tags like audio and video.
5. Students will be able to design and develop dynamic website using javascript.

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**Course Outcomes – Program Outcomes Mapping Table :**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	L		M			H				
CO2		M			L			H		L
CO3	L		L			M	M		M	
CO4	M			H		L		M		M
CO5		L			M		L		H	

**Text Book :**

1. Honey Cutt, “Using the Internet”, 4th Edition, PHI Learning.
2. Powell Thomas, “HTML & CSS The Complete Reference”, Tata McGraw Hill<sup>[L]</sup><sub>SEP</sub>
3. “Learning Java Script” , O’Reilly 3<sup>rd</sup> Edition.

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**Reference Books :**

1. Wendy Willard, "HTML: A Beginner's Guide 5/E", 5th Edition, McGraw Hill.
2. Faithe Wempen, "Step by Step HTML 5", South Asian Edition, Microsoft Press and PHI Learning
3. HTML5 Black Book, Kogent learning solutions Inc.
4. Benjamin Jakobus , Jason Marah, "Mastering BootStrap 4" 2nd Edition
5. Matt Lambert, "Learning BootStrap 4", Packt Publishing

**Web References :**

1. [www.w3schools.com](http://www.w3schools.com)
2. [www.codecademy.com](http://www.codecademy.com)

**App References :**

1. SoloLearn:  
<https://www.sololearn.com/Course/HTML/>
2. Microsoft Store:  
<https://www.microsoft.com/en-us/p/html-and-css/tutorial/9wzdnrdhshv?activetab=pivot:overviewtab>
3. KhanAcademy:  
[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwifzvWs0O\\_gAhVZi3AKHabpD0MQFjAAegQIABAC&url=https%3A%2F%2Fwww.khanacademy.org%2Fcomputing%2Fcomputer-programming%2Fhtml-css&usg=AOvVaw3yp6RYj4XEB7njt vx7wC2f](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwifzvWs0O_gAhVZi3AKHabpD0MQFjAAegQIABAC&url=https%3A%2F%2Fwww.khanacademy.org%2Fcomputing%2Fcomputer-programming%2Fhtml-css&usg=AOvVaw3yp6RYj4XEB7njt vx7wC2f)

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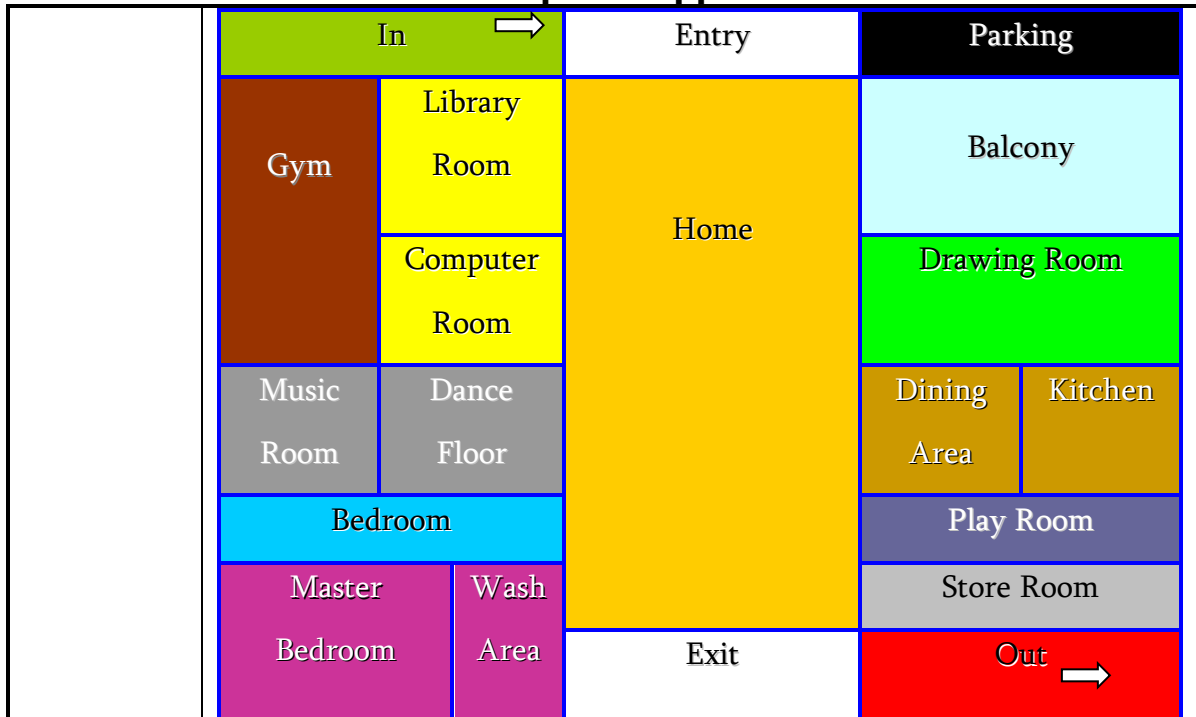
Syllabus Coverage from text /reference book &amp; web/app reference:

Unit No	Chapter Numbers
1	Book 1: Chapter 1 and <a href="https://www.tutorialspoint.com/internet_technologies/">https://www.tutorialspoint.com/internet_technologies/</a>
2	Book 2: Chapter 2.1 to 2.6
3	Book 2: Chapter 9,10,11, <a href="https://www.w3schools.com/html/html5_intro.asp">https://www.w3schools.com/html/html5_intro.asp</a> , <a href="https://www.tutorialspoint.com/html5/">https://www.tutorialspoint.com/html5/</a> , <a href="https://www.javatpoint.com/html5-tutorial">https://www.javatpoint.com/html5-tutorial</a>
4	Book 2: Chapter 6, <a href="http://www.w3school.com">www.w3school.com</a> , <a href="https://www.pdfdrive.com/css3-for-web-designerspdf-e9214924.html">https://www.pdfdrive.com/css3-for-web-designerspdf-e9214924.html</a> , <a href="https://css3-tutorial.net">https://css3-tutorial.net</a> , <a href="https://www.cssbasics.com/">https://www.cssbasics.com/</a> , <a href="https://www.syncfusion.com/ebooks/twitterbootstrap4-succinctly">https://www.syncfusion.com/ebooks/twitterbootstrap4-succinctly</a> ), <a href="https://www.w3schools.com/bootstrap4/">https://www.w3schools.com/bootstrap4/</a> , <a href="https://www.tutorialspoint.com/bootstrap4">https://www.tutorialspoint.com/bootstrap4</a> , <a href="https://scrimba.com/g/gbootstrap4">https://scrimba.com/g/gbootstrap4</a> .
5	Book 3: Chapter 3,4,5,6,8

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**PRACTICALS**

Unit No	List of Practicals
1	-
2	<ol style="list-style-type: none"> <li>1. Write html code to insert background to the webpage</li> <li>2. Create a web page with appropriate content and insert an image towards the left hand side of the page when user clicks on the image, it should open another web page.</li> <li>3. Create a web page showing an ordered list of names of the subjects, with nested list if any subject has been selected it should display the content of each subject</li> <li>4. Suppose your company has three employees and you want to create a company "directory page" listing some information about each of them. Write the HTML for that page and link 1 employee to another employee.</li> <li>5. Create a web page showing an ordered list of names of the subjects, with nested list if any subject has been selected it should display the content of each subject.</li> <li>6. Write the HTML to make it possible for someone clicking the words "About the authors" at the top of the page to skip down to a list of credits at bottom of the page.</li> <li>7. Create an ordered list of stream and name of subjects. When user clicks on stream, it should open stream and when user clicks on subject name, it must display details of subject.</li> <li>8. Create unordered list of menu of restaurant.</li> <li>9. Write html code which allows the user to move within a same web page.</li> <li>10. Write an html code to display complete detail of student including student name, city, stream, class, email id, gender using different list.</li> </ol>
3	<ol style="list-style-type: none"> <li>1. Create a simple table which shows only 2 columns like Student Name and city.</li> <li>2. Create a following table structure in your HTML page.</li> </ol>

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4. Create a below web page using form tag.

**<form> Tag**  
**Sign Up Form**

**Email**

**Username**

**Password**

Already have an account? [Sign in.](#)

5. Create a web page which contains below information using form tag.

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**Personal Details**

Name:

Password:

E-mail id:

Gender:  Male  Female

Contact#:

**Educational Qualification**


Degree:

Engineering:

Hobbies:  Playing chess  Reading Books

**Address**

Attch Resume:  No file chosen



6. Create the following frames in your html page.

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	<div data-bbox="589 338 1281 810" style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div style="background-color: #8080c0; color: white; padding: 5px; width: 30%;"> <p><b>Frame A</b></p> <p>Note: The frameset, frame, and noframes elements are not supported in HTML5.</p> </div> <div style="background-color: #d2b48c; width: 35%;"></div> <div style="background-color: #ffff00; width: 30%;"></div> </div> </div> <ol style="list-style-type: none"> <li>7. Create a web page for play audio and video song and SVG animation.</li> <li>8. Create a web page for canvas animation and URL encoding in HTML5.</li> <li>9. Create a web page for HTML 5 semantic element and Geo-location.</li> <li>10. Create a web page for drag and drop in HTML5.</li> <li>11. Create a web page for Server-Sent Events Support in HTML5.</li> </ol>
<p><b>4</b></p>	<ol style="list-style-type: none"> <li>1. Write a text with color in HTML page using inline CSS.</li> <li>2. Write a two different paragraph in your HTML page and apply different formatting to both of that using external stylesheet.</li> <li>3. Create a HTML page in which, if you mouse over on image so image opacity will be decreased and if you mouse out so, it gains the original opacity back.</li> <li>4. Create one 3x3 HTML table which display different color name in each cell and when you mouse over on that cell so it change the</li> </ol>

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	<p>bgcolor of that cell as per the color is mentioned in that cell.</p> <ol style="list-style-type: none"> <li>5. Create a any simple table using bootstrap grid system.</li> <li>6. Create HTML page with some textual paragraph with different style using Bootstrap typography classes.</li> <li>7. Create a HTML page to display different Glyphicons using Bootstrap.</li> <li>8. Create HTML page to display progress bar using Bootstrap</li> <li>9. Create a html page with pager (pagination) which helps to navigate from one page to another page.</li> <li>10. Create HTML page to generate drop down menu using Bootstrap and to generate any attractive carousel using Bootstrap.</li> </ol>
5	<ol style="list-style-type: none"> <li>1. Write a program in java script to get student name, class and stream using dialog box and print all three details in an alert box.</li> <li>2. Write a program in Java Script which allows certain fields like Name, Age, Gender, <input type="text"/>Age, Cite, State and Country. Perform certain validations like name should accept only alphabets, Gender should accept only 1 character, Age should be only in numeric between 1 and 100. <input type="text"/></li> <li>3. Write a program in Java Script which allows certain fields like First Name, Last name, email address, comments. Perform certain validations like first name and last name should not be empty and email should be valid. If user clicks the submit button it should open a new window and contents should be displayed. If reset contents should be cleared. <input type="text"/></li> <li>4. Write a program in Java Script which contains 3 functions which are invoked on clicking the Red, Blue and green buttons. The function should contain changing the background, foreground to respective color and to display corresponding</li> </ol>

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	<p>status messages. [SEP]</p> <p>5. Develop a webpage using java Script which has following fields like Source, Destination; train no, Date and Number of tickets.</p> <p>Source and destination should allow only place code in 3 character [SEP]</p> <p>Date should be in the format DD/ MM / YY [SEP]</p> <p>Number of tickets should allow only numeric [SEP]</p> <p>6. Write a program in Java Script that allows user to enter the text. It also allows the user [SEP] to accept size and font name that has to be applied on the text entered by the user. [SEP]</p> <p>7. Write a program in java script which accepts names in a text box, if a button is clicked names should be sorted and added in another one text area.</p> <p>8. Write Java Script code to represent Document object.</p> <p>9. Represent all properties and methods of Location object in Java Script.</p> <p>10. Represent all events of Java Script.</p>
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**CASE STUDY**

1. Study [www.w3schools.com](http://www.w3schools.com) and analyze which HTML tags has been used in this website.
  2. Study <https://www.codecademy.com/learn/learn-html> and analyze which HTML5 tags has been used in this website.
  3. Study [www.tutorialspoint.com](http://www.tutorialspoint.com) and [www.javatpoint.com](http://www.javatpoint.com) and create your own fully responsive HTML web page with all possible types of styling inside.
  4. Study <https://www.wix.com> and more free hosting web site and create your own fully responsive HTML web page with all possible types of styling inside and host it.
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