

## COURSE STRUCTURE

Course Code	BCA20030				
Course Category	Program Foundation				
Course Title	Basics of Web Technology				
Teaching Scheme	Lectures	Tutorials	Laboratory / Practical	Project	Total
Weekly load hours	2	-	4		4
Credits	2	-	2		4
Assessment Schema Code	TL1				

**Pre-requisites:** Basic knowledge of text editors & browsers

### Course Objectives:

1. To introduce the role of HTML and CSS in the development of web pages
2. To understand the structure of an HTML document, HTML elements and attributes
3. To acquire skills of effective web page designing
4. To make familiar with client-side scripting using JavaScript
5. To get project-based experience needed for entry into web application and development careers.

### Course Outcomes:

After completion this course, a student will be able to:

1. Select and apply mark-up languages for processing, identifying, and presenting information in web pages.
2. Implement interactive web page(s) using HTML, CSS and JavaScript
3. Design a responsive web site using HTML5 and CSS3 and JavaScript.
4. Develop dynamic web pages using JavaScript.
5. Combine multiple web technologies to create advanced web components.
6. Incorporate best practices in navigation, usability and written content to design websites that give users easy access to the information they seek

### Course Contents:

#### **Unit 1: Basics of Internet and Web: 02**

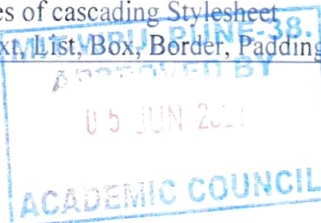
The basics of Internet, World Wide Web, Web page, Home page, Web site, Static, Dynamic and Active web page, Overview of Protocols – Simple Mail Transfer Protocol, Gopher, Telnet, Emails, TFTP, Simple Network Management Protocol, Hyper Text Transfer Protocol, Client server computing concepts.

#### **Unit 2:HTML: 08**

History of HTML Tags, Elements and Attributes, How to differentiate HTML Document Versions, Basic Formatting Tags, Grouping Using Div Span, Lists, Images, Table, Hyperlink, Frames, HTML Forms Introduction to HTML5, Features of HTML5, HTML5 Tags – Audio, Video, Canvas

#### **Unit 3: CSS: 10**

Introduction to cascading stylesheet, Types of cascading Stylesheet  
CSS Properties- Background & Color, Text, List, Box, Border, Padding, Margin, Font Properties



CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align, Pseudo class, Navigation Bar) Creating page Layout and Site Design Overview of CSS2 & CSS3

#### Unit 4: Java Script: 10

What is JavaScript, Variables, DataTypes, Operators, Type conversion functions, , Decision Control Structures, Loops ,Built in and User Defined Functions, , Event Handling, JS Array, JS String ,JS Date ,JS Math object methods, Form Validation

#### Learning Resources:

##### Text Books/Reference Books::

1. Web Technologies, Achyut Godbole, Atul Kahate, 3<sup>rd</sup> Edition, McGraw Hill Publication.
2. Web Technology (HTML-CSS-JSS), Mr. Aniket Nagane Mr. Bhupesh Taunk Nirali Prakashan,
3. Thinking in HTML eBook by Aravind Shenoy, BPB Publication, 2<sup>nd</sup> Edition.

##### Supplementary Reading:

1. Web Applications: Concepts and Real-World Design, Knuckles, Wiley-India Edition, Student Edition.
2. Internet and World Wide Web How to program, P.J. Deitel H.M. Deitel, Pearson Education, 3<sup>rd</sup> Edition
3. HTML and CSS: Design and Build Websites by Jon Duckett, John Wiley & Sons; First Edition (November 8, 2011)
4. Web Technologies, Black Book, Dreamtech Press Publication, 7<sup>th</sup> Edition.

#### Web Resources:

##### Weblinks:

- <https://www.geeksforgeeks.org/web-technology/>
- [https://www.tutorialspoint.com/web\\_developers\\_guide/web\\_basic\\_concepts.htm](https://www.tutorialspoint.com/web_developers_guide/web_basic_concepts.htm)
- [https://archive.uneca.org/sites/default/files/uploaded-documents/SROs/SA/GIS-SP2018/introduction\\_to\\_web\\_technology.pdf](https://archive.uneca.org/sites/default/files/uploaded-documents/SROs/SA/GIS-SP2018/introduction_to_web_technology.pdf)

MOOCs: Online courses for self-learning

Courses by NPTEL and MIT Open Courseware etc

##### Pedagogy:

- Participative learning,
- discussions,
- problem solving,
- assignments,
- Tutorials,
- Lab assignments.

