Uka Tarsadia University

B. Tech.

CE / IT / AI & DS / CYBER SECURITY / CE (SE) / CSE / CSE (CC) / CSE (AI&ML) / CSE (CS)

Semester II

WEB DESIGNING

IT3015

EFFECTIVE FROM Jan-2025

Syllabus version: 1.00

Subject Code	Subject Title
IT3015	**Web Designing**

Teaching Scheme				Examination Scheme			
Hours		Credits		Theory Marks		Practical Marks	Total Marks
Theory	Practical	Theory	Practical	Internal	External	CIE	
3	4	3	2	40	60	100	200

Objectives of the course:

- The course introduces fundamentals of various internet technologies and web framework.
- The primary objective of the course is to provide concepts involved in designing a website by providing knowledge of various tools in order to design a website.

Course Outcomes:

Upon completion of the course, the student will be able to,

CO1: Get knowledge about the World Wide Web (WWW) and the basics of web design.
CO2: Learn and apply the markup language for web design.
CO3: Understand and apply the Cascading Style Sheet (CSS).CO4: Understand and apply the JavaSript (JS).
CO5: Understand web graphics elements.
CO6: Design web page using CSS frameworks.

Sr. No.	Topics	Hours
	Unit – I	
1	**Basics of Web Designing:** Introduction to web designing, The Internet versus the Web, A web browser, Web Page Addresses (URLs), Protocols, Website design issues, Planning a website, Introduction to HTML, HTML document structure.	5
	Unit – II	
2	**Markup Language:** HTML, Marking up text, Adding links, Adding images, Table markup, Forms, and Embedded media.	9

Unit – III		
3	**CSS:** Introduction to CSS, Formatting text, Colors and Backgrounds, Box, Floating and Positioning, CSS layout with FlexBox and Grid, Introduction to responsive web design, More CSS techniques.	9
Unit – IV		
4	**JavaScript:** Introduction to JavaScript, Adding JavaScript to a page, The anatomy of a script, The browser object, Events, DOM, Polyfills.	9
Unit – V		
5	**Web Graphics:** Image sources and, Image file formats, Image size and resolution, Favicons, Need of Image optimization, Introduction to Scalable Vector Graphics (SVG).	4
Unit – VI		
6	**CSS Frameworks:** Introduction to CSS frameworks, Introduction to Bootstrap, Bootstrap file structure, Basic HTML template, Default grid system, Fluid grid system, Container layouts, Responsive design, Typography, Tables, Forms, Buttons, Images, Icons, Bootstrap layout components: Dropdown Menus, Button Groups, Buttons with Dropdowns, Navigation Elements, Navbar.	9

Sr. No.	Web Designing (Practicals)	Hours
1	a) Introduction to HTML. b) Write an HTML program to create the Hello World Program. [Use <html>, <body>, <title>, comment <!> tags.]	2
2	Write an HTML code to demonstrate the use of the following text formattingtags: <i>, <b>, <u>, <sup>, <sub>, <h1> to <h6>, <p>, <hr>, , , .	2
3	Write an HTML code to create an ordered list, an unordered list, and a definition list.	2
4	Write an HTML code demonstrating the use of images, hyperlinks, and background attributes.	2
5	Write an HTML code to create a Timetable of your class using Table tags.	2
6	Write an HTML code to create a form using the following tags: <form>, <input>(text, password, checkbox, radio, submit, button, reset).	4
7	Write an HTML code to create a form using the following tags: <textarea>, <select>, <option>, <fieldset>, <legend>, <button>.	2
8	Write internal and inline CSS code to design your product page using the following selector: body, h1, p, hr, and img. Apply the following properties: color, font, text, background, border.	4

9	Write a CSS code to design your product page using class, id, and pseudo-class selectors. Apply the following properties: color, font, text, background, border, margin, padding, list-style and position using the concept of class(.) and id(#), pseudo-class selector, and internal and external CSS.	6
10	Write a CSS code for applying animation, shadows, text effects, and gradients to design a web page.	2
11	Display an image overlay effect on hover using HTML and CSS.	2
12	Write a JavaScript to show alert, confirm, and prompt boxes.	2
13	Write a JavaScript function to find the maximum of three numbers taken from the user using if-else and print it.	2
14	Write a JavaSript function to sort an array of five elements. Display an alert box to show the result.	2
15	Print date and time on click of a button using inner HTML in JavaScript.	2
16	Write an HTML/JavaScript code to create a simple calculator.	2
17	Write JavaScript to validate the book issue form.	2
18	Write a code to implement a dynamic web page for adding and deleting elements.	4
19	Create a website using HTML, CSS, and JavaScript.	2
20	Create responsive table design using Bootstrap4 Framework.	4
21	Create the following design for the navbar using Bootstrap4 Framework.	2
22	Create responsive HTML web pages using Bootstrap4 Framework.	6

Text book:

1. Niederst Jennifer Robbins, “Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript and Web Graphics”, 5th Edition, O’Reilly.

Reference books:

1. Ralph Moseley, M.T.Savaliyaa, “Developing Web Application”, Wiley India.
2. Jake Spurlock, “Bootstrap”, O’Reilly.
3. “Web Technologies”, Black Book, Dreamtech Press.

Course objectives and Course outcomes mapping:

- The course introduces fundamentals of various internet technologies and web framework: CO1, CO6.
- The primary objective of the course is to provide concepts involved in designing a website by providing knowledge of various tools in order to design a website: CO2, CO3, CO4, CO5.

Course units and Course outcome mapping:

Unit No.	Unit Name	Course Outcomes					
		CO1	CO2	CO3	CO4	CO5	CO6
1	Basics of Web Designing	✓					
2	Markup Language		✓				

3	CSS			✓			
4	JavaScript				✓		
5	Web Graphics					✓	
6	CSS Framework						✓

Programme Outcomes:

PO1: Engineering knowledge: An ability to apply knowledge of mathematics, science, and engineering.

PO2: Problem analysis: An ability to identify, formulate, and solve engineering problems.

PO3: Design/development of solutions: An ability to design a system, component, or process to meet desired needs within realistic constraints.

PO4: Conduct investigations of complex problems: An ability to use the techniques, skills, and modern engineering tools necessary for solving engineering problems.

PO5: Modern tool usage: The broad education and understanding of new engineering techniques necessary to solve engineering problems.

PO6: The engineer and society: Achieve professional success with an understanding and appreciation of ethical behavior, social responsibility, and diversity, both as individuals and in team environments.

PO7: Environment and sustainability: Articulate a comprehensive world view that integrates diverse approaches to sustainability.

PO8: Ethics: Identify and demonstrate knowledge of ethical values in non-classroom activities, such as service learning, internships, and field work.

PO9: Individual and team work: An ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give/receive clear instructions.

PO11: Project management and finance: An ability to demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: A recognition of the need for, and an ability to engage in life- long learning.

Programme Outcomes and Course Outcomes mapping:

Programme Outcomes	Course Outcomes					
	CO1	CO2	CO3	CO4	CO5	CO6
PO1	✓	✓	✓	✓		
PO2	✓	✓	✓	✓	✓	✓
PO3		✓	✓	✓	✓	✓
PO4				✓	✓	✓
PO5					✓	✓
PO6						
PO7						
PO8						
PO9						
PO10						
PO11						
PO12						