

Semester: 4				
Programme : B.Sc. Computer Science (Hons)				
Course : Web Technology				
Paper code: S2CS230421P			Credits: 3	
Hours/week : 4				
Category: Core/MDC/SEC/VAC : SEC				
Theory / Practical / Composite : Practical				
No of Modules : 1				
<p>Course Overview: This course provides an introduction to fundamental web development technologies. It covers the structure and design of web pages using HTML, including text formatting, images, hyperlinks, tables, and forms. The course also introduces CSS for styling and layout of web pages, JavaScript for adding interactivity through event handling, and PHP with MySQL for basic server-side scripting and database interaction. The course aims to develop foundational skills required to design and create simple dynamic websites.</p>				
Course Outcome:				
1. Identify and explain the basic structure of HTML documents , including tags, attributes, and formatting elements.				
2. Develop web pages using HTML elements such as lists, images, hyperlinks, tables, and forms.				
3. Apply CSS techniques (inline, internal, and external) to design and format web pages effectively.				
4. Implement CSS features such as box model, borders, backgrounds, gradients, and media elements for improved webpage layout and presentation.				
5. Use JavaScript event handling to add basic interactivity to web pages.				
6. Develop simple dynamic web applications using PHP and MySQL , including handling form data and database connectivity.				
<p>Prerequisites: Students should have a basic understanding of computers and the internet, along with familiarity in using a web browser and simple text editors. Basic knowledge of website structure, file management, and fundamental concepts of web design will help students effectively learn HTML, CSS, and other web development technologies.</p>				
SYLLABUS				
UNIT/Module	CONTENT	HOURS or NUMBER OF CLASSES	CO Mapping	COGNITIVE LEVEL
I.	Basics of HTML, HTML Tags and Attributes, Parts of HTML Document. Text Formatting: Basic Formatting Tags, Unordered Lists, Order List, List Items, Headings, Paragraph attributes, font, text alignments. Image, Hyperlinks, and Audio/Video: Insert Image, Image size, Alternate Text, Hypertext, Hyperlinks (Internal & External), Named Anchors, Email Links, Alternate Text, Image Hyperlinks, Image Mapping, Using Audio and	15	CO1,CO2	K1, K2, K3 (Remember, Understand /Apply)

	video on web pages. Tables: TR, TD, TH, Colspan, Rowspan, Borders. Forms: Different form elements, HTML 5 Elements, Form methods, form action.			
II.	CSS: Different ways to use CSS: Inline CSS, Internal CSS, External CSS. CSS Linear & Radial gradients, CSS Text formatting, CSS Box Model, CSS Border, CSS backgrounds, CSS Box structure, CSS Media, CSS Translation.	CO3,CO4	15	K2, K3, K4 (Understand, Apply, Analyse)
III.	Java Script: Event Handling using Java Script.	CO5	8	K3, K4, K5 (Apply, Analyse, Evaluate)
IV.	PHP: Introduction to PHP, Form Data using PHP, Database Handling using PHP and MySQL	CO6	14	K3, K4, K5, K6 (Apply, Analyse, Evaluate, Create)
Text Books				
1. Web Design with HTML, CSS, JavaScript and jQuery – Jon Duckett, Wiley.				
2. Learning PHP, MySQL, JavaScript, CSS & HTML5 – Robin Nixon, O’Reilly Media.				
3. Mastering HTML, CSS & JavaScript Web Publishing – Laura Lemay, Rafe Colburn & Jennifer Kyrnin, BPB Publications.				
Suggested readings				
1. HTML5 Black Book – DT Editorial Services, DreamTech Press.				
2. HTML & CSS: The Complete Reference – Thomas A. Powell, McGraw-Hill.				
3. Designing with Web Standards – Jeffrey Zeldman, New Riders.				
Web Resources				
1. World Wide Web Consortium: https://www.w3.org/				
2. W3Schools: https://www.w3schools.com/				
3. PHP: https://www.php.net/				
Evaluation : PRACTICAL EVALUATION				

COs	CO Description	Cognitive levels
CO1	Explain the fundamental structure of HTML documents, including tags, attributes, and text formatting elements.	K1, K2
CO2	Construct web pages using core HTML elements such as lists, images, hyperlinks, tables, and forms.	K2, K3
CO3	Apply CSS (inline, internal, and external) to design and format web pages effectively.	K2, K3
CO4	Demonstrate advanced CSS features including box model, borders, backgrounds, gradients, and media elements to enhance layout and presentation.	K3, K4
CO5	Implement JavaScript event handling to develop interactive web elements.	K3, K4, K5
CO6	Develop dynamic web applications using PHP and MySQL, including form handling and database connectivity.	K3, K4, K6