

Course Type	Course Code	Name of Course	L	T	P	Credit
SDC (Minor)	NCSM301	WEB DEVELOPMENT LABORATORY	0	0	3	1.5
<b>Course Objective</b>						
The objective of the course is to provide a practical experience to Web Development and the technologies used for building simple websites.						
<b>Learning Outcomes</b>						
Upon successful completion of this course, students will: <ul style="list-style-type: none"> <li>● have practical experience of the World Wide Web and its operation</li> <li>● have a hands-on experience with HTML and CSS</li> <li>● have a hands-on experience with JavaScript</li> <li>● have a hands-on experience with building a simple, end-to-end including server-side scripts written in PHP</li> </ul>						
Unit No.	Topics to be Covered	Practical Hours	Learning Outcome			
1.	<b>Web Basics:</b> Identifying Secure (HTTPS-based) vs Non-secure (HTTP-based) Websites, Finding IP and MAC addresses of machines, Setting Static Ips and DNS Servers, Using Proxy Servers	3	Introduction to basic concepts and internet terminologies			
2.	<b>HTML:</b> Creating Static Web Pages with Rich Text and Images, Concept of containerising content with <div> and <p> elements, Linking Static Pages together with hyperlinks, Using Line Breaks, Horizontal Rules and Headings, Exploring the Inspect tool in Web Browsers	9	Creating static pages with given content in HTML and inspect the same in a browser			
3.	<b>CSS:</b> Creating Stylised Pages with CSS classes, Centering Elements, Using Padding and Margins for precise layouts, Overriding attributes with <i>!important</i> property, Exploring the Style Inspection tool in Web Browsers	6	Styling static pages with CSS rules and analyse the same in a browser			
4.	<b>JavaScript:</b> Validating Forms, Attaching handlers for common events like click and hover, Sending and receiving data asynchronously, using jQuery for elementary tasks	12	Making the web pages dynamic			
5.	<b>PHP and Apache Server:</b> Installing and setting up Apache Server for use with PHP, Using <i>php_info()</i> , Handling GET requests in PHP, Handling POST requests in PHP, Using Sessions	12	Creating end-to-end websites using PHP for server-side scripting			
<b>Total: 42</b>						

#### Text Books:

1. Julie C. Meloni, Jennifer Kyrnin, "Sams Teach Yourself HTML, CSS, and JavaScript All in One", Third Edition. . O'Reilly Media, Inc.
2. Frank Corso, Justin Dennison, "Intro to PHP", Packt Publishing.

#### Reference Books:

1. Eric A. Mann, "PHP Cookbook", O'Reilly Media, Inc.
2. David Flanagan, "JavaScript: The Definitive Guide", 7th Edition. . O'Reilly Media, Inc.

#### Online Reference:

1. <https://www.w3schools.com/>