

Course Type	Course Code	Name of Course	L	T	P	Credit
AEC/SEC	NCSS201	WEB TECHNOLOGY	3	0	0	3
<b>Course Objective</b>						
The objective of the course is to present an introduction 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 fundamental understanding of the World Wide Web and its operation</li> <li>• have a working knowledge HTML and CSS to create static web pages</li> <li>• have a basic understanding of JavaScript to add elementary dynamism to a web page</li> <li>• have a working understanding of creating server-side scripts using PHP</li> </ul>						
Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome			
1.	<b>Introduction:</b> Client-Server Model, World Wide Web, Basic Internet Terminology – Domain Names, IP Addresses, DNS, Proxy Servers	3	Introduction to basic concepts and internet terminologies			
2.	<b>HTML:</b> Concept of Tags and Attributes, Head and Body sections, Rich-text formatting (Bold, Italics, Underlined Text), Headings, Containers (Div, Span and Paragraph tags), Hyperlinks	5	Creating static pages with given content in HTML			
3.	<b>CSS:</b> The style attribute, CSS Selectors vs X Path Selectors, CSS Selectors for Ids and Classes, CSS Selectors for children elements and filtering on attributes, Using the link tag to link external CSS files, Common CSS Properties - for changing, colours, font types and font weights	8	Styling static pages with CSS rules			
4.	<b>JavaScript:</b> Fundamentals – variables, data types, operators, Control Structures (if-else, switch-case, loops), Functions, Global Scope, DOM, HTML Form Elements, Validation, Event Handling, Asynchronous JavaScript (ajax)	13	Adding dynamic elements to HTML pages			
5.	<b>Server Administration:</b> Installing and setting up Apache Server, Installing and managing PHP	2	Introduction to tasks involved in setting up and managing a web server to host a PHP-based website			
6.	<b>PHP:</b> Enabling PHP for use with Apache Server, PHP fundamentals - variables, data types, and control structures, GET vs POST requests, Embedding PHP with HTML, Using Sessions, Creating Virtual Hosts, Deploying a PHP-based website on Localhost	11	Creating simple end-to-end websites in PHP			
<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.