Department of Computer Science and IT		
L T P C **(2-0-2)** **Medium of Instruction :** **English Only**	NCU THE NORTHCAP UNIVERSITY™ **Subject : Progressive Web App1** **Code : CSL253**	**Issue Date:** **Revision Date: 4/6/15**

Course Outcomes: Students will be
CO1: *Able to design a simple web page using HTML5..*
CO2: *Able to add basic style and structure in web page designing..*
CO3: *Able to add dynamic contents in web page..*
CO4: *Able to include calls for various services in a web page..*
CO5: *Able to design a web app.*

Prerequisite: *Programming*

Unit No.	Contents	No. of Lectures
Unit-1:	Introduction of PWA, Overview of HTML4 and CSS2. Features of HTML5, Writing HTML code using Header Tags, Paragraphs, Ordered and Unordered lists, Forms, Links, Tables, Iframes, Images, Text Formatting, Image Maps. XHTML, HTML5 Local Storage, HTML5 form validate/ no-validate, HTML5 canvas, Embedding audio and video in a webpage, Drag and drop, HTML5 web workers and server sent events, Styling of HTML elements-text, links, lists and tables.	6
CO1	*Able to design a simple web page using HTML5.*	
Unit-2:	Different ways to write CSS e.g. external, internal, inline. Creating Navigation Bars. Writing Media Rules, hide visibility of an element. CSS Image Sprites and Gradients. CSS Pseudo Classes and Pseudo Elements, CSS3 Text Effects using different text fonts. Creating 2D and 3D transformations and applying animations, transitions to HTML elements, Responsive web pages.	6
CO2	*Able to add basic style and structure in web page designing.*	
Unit-3:	Java Script data types, variables, arrays, Creating loops and writing if-else decision making statements, Defining and calling JavaScript functions on events, Manipulating DOM elements Twitter Bootstrap, Google APIs, Social Plugins, Introducing jQuery.	8
CO3	*Able to add dynamic contents in web page.*	
Unit-4:	Building a single page application, Synchronous vs Asynchronous Programming HTTP Fundamentals AJAX, JSON, and Promises, REST API Fundamentals Building an API in Node.js with Loopback Creating Resources with AJAX.	4
CO4	*Able to include calls for various services in a web page.*	

Unit-5:	Handling User Interactions and Building Create/ Edit Forms, Building a CRUD application.	4
CO5	*Able to design a web app.*	
	TOTAL	28
Text Books	• Building Progressive Web Apps: Bringing the Power of Native to the Browser by Tal Ater; Publisher: O'Reilly Media; Year:2017	
Reference Books	• Progressive Web Application Development by Example: Develop fast, reliable, and engaging user experiences for the web by Chris Love; Packt Publishing; Year: 2018	
Reference Web Sites	http://lmsncu.ncuindia.edu/login/index.php	
Paper Setting Guidelines &Evaluation Scheme	As per University policy	