CSE202		Web Technology		L	T	P	C
				3	0	0	3
Co-requisite:		Database management systems					
Prerequisite:		Knowledge in any programming language					
Data Book / Codes/Standards		NIL					
Course Category	√	Core Course		Engineering Science			
Course designed by		Department of CSE					
Approval		-- Board of Studies -- , 2018					

PURPOSE	The course focus on learning the basics of world wide web and developing interactive web based applications. The development of web-based applications requires knowledge about the underlying technology and the knowledge in the programming languages for web development.

LEARNING OBJECTIVES		STUDENT OUTCOMES						
At the end of the course, student will be able to								
1.	Learn the basics of internet and communication models	a						
2.	Learn the basics of client-side programming techniques	a	b	c				
3.	Understand the basics of document object models	a	b	c				
4.	Understand the ways to store and transport data	a	b	c				
5.	Learn about various web services and how it's useful in web development	a	b	c				

Session	Description of Topic	Contact hours	C-D-I-O	IOs	Reference
	UNIT I :	7			
1.	uction to WWW: Protocols and programs. Secure connections.	1			
2.	Application and development tools. The web browser.	1			
3.	Design: Web site design principles. Planning the site and navigation.	1			
4.	uction to XHTML- Editing XHTML.	1			
5.	XHTML Example. W3CXHTML Validation Service, Headers.	1			
6.	Linking, Images, Special Characters and More Line Breaks.	1			
7.	ered Lists, Nested and Ordered Lists. Internet and World Wide Web Resources.	1			
a.	**UNIT II :**	9			

Edit with WPS Office

8.	sheets: Need for CSS, introduction to CSS.	1			
9.	syntax and structure, using CSS, background images, colors and properties.	1			
10.	Manipulating texts, using fonts. Borders and boxes. Margins, padding lists. Positioning using CSS, CSS2.	1			
11.	cript: Functions- Introduction, Program Modules in JavaScript.	1			
12.	ammer-Defined Functions, Function Definitions. Random-Number Generation	1			
13.	ple: Game of Chance, Duration of Identifiers, Scope Rules.	1			
14.	cript Global Functions, Recursion.	1			
15.	ple Using Recursion: Fibonacci Series, Recursion vs. Iteration.	1			
16.	cript Internet and World Wide Web Resources. JavaScript arrays, JavaScript objects.	1			
a.	**UNIT III :**	**12**			
17.	hic HTML: Object Model and Collections- Introduction.	1			
18.	Object Referencing, Collections all and children, Dynamic Styles.	1			
19.	Dynamic Positioning, Using the frames Collection.	1			
20.	Navigator Object, Summary of the DHTML Object Model.	1			
21.	Dynamic HTML; Event Model- Introduction Event on click.	1			
22.	Event on load, Error Handling with on error.	1			
23.	Tracking the Mouse with Event onmousemove.	1			
24.	Rollovers with onmouseover and onmouseout.	1			
25.	Form Processing with on focus and on blur.	1			
26.	More Form Processing with on submit and on reset.	1			
27.	Event Bubbling, More DHTML Events. Dynamic HTML Filters and transitions.	1			
28.	Dynamic HTML Data binding with tabular data control. Structured graphics and active X control.	1			
a.	**UNIT IV:**	**9**			
29.	sible Markup Language (XML)- Introduction.	1			

30.	Structuring Data, XML Namespaces.	1			
31.	Document Type Definitions (DTDs) and Schemas. Document Type Definitions.	1			
32.	W3C XMLSchema Documents, XML Vocabularies.	1			
33.	Document Object Model (DOM).	1			
34.	DOM Methods, Simple API for XML (SAX).	1			
35.	Extensible Style sheet Language (XSL).	1			
36.	Simple Object Access Protocol (SOAP).	1			
37.	Internet and World Wide Web Resources.	1			
a.	**UNIT V:**	**8**			
38.	Web Servers (IIS, PWS and Apache)-Introduction.	1			
39.	HTTP Request Types, SystemArchitecture.	1			
40.	Client-Side Scripting versus Server-Side Scripting.	1			
41.	Accessing Web Servers. Multimedia, PHP, String Processing and Regular Expressions.	1			
42.	Form processing and Business logic, Dynamic content. Database connectivity, Applets and Servlets.	1			
43.	JDBC connectivity, JSPand Web Development Frameworks.	1			
44.	Introduction to web services: JAX-RPC-Concepts-Writing a Java Web Service-Writing a Java Web Service Client Describing Web Service.	1			
45.	SOAP & REST with Example.	1			
	Total contact hours	45			

LEARNING RESOURCES	
	TEXT BOOKS/REFERENCE BOOKS/OTHER READING MATERIAL
1.	Deitel, Deitel and Nieto, Internet and Worldwide Web - How to Program, 5th Edition, PHI,2011
2.	Jeffrey C.Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education
3.	Marty Hall and Larry Brown,"Core Web Programming" Second Edition, Volume I and II, Pearson Education, 2001

4.	Kalin, Martin. Java Web Services: Up and Running: A Quick, Practical, and Thorough Introduction. " O'Reilly Media, Inc.", 2013.

Course nature							Theory and Lab	
Assessment Method (Weightage 100%)								
In-semester	Assessment tool	Cycle test I	Cycle test II	Assignments	Lab Performance	Quiz	**Total**	
	Weightage Theory	15%	15%	5%	10%	5%	50%	
End semester examination Weightage :							50%	

	CSE202 L	Web Technology Lab	L	T	P	C
			0	0	2	1
Co-requisite:		Database management systems				
Prerequisite:		Knowledge in any programming language				
Data Book / Codes/Standards		NIL				
Course Category	√	Core Course	Engineering Science			
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Session	Description of Topic	Contact hours	C-D-I-O	IOs	Reference
1.	Familiarize all the basic HTML tags.	1			
2.	Implement a static HTML personal webpage by using all the possible basic tags. [Each student can develop his own bio-data page]	1			
3.	To create an html file to link to different html page which contains images, tables, and also link within a page use Frames, Forms, etc. also.	1			
4.	Create an HTML file by applying the different styles using inline, external and internal style sheets.	1			
5.	a. Create an html page to change the background color for every click of a button using Java script. b. write a Java script program to define a user defined function for sorting the values in an array. c. Create an html page with 2 combo box populated with month & year, to display the calendar for the selected month & year from combo box using javascript.	2			
6.	Develop a webpage with HTML and Java Script to read name and marks of five subjects obtained for that particular student using forms. Further, it should compute the Grade and display it as a message box.	2			
7.	Create a form to collects the name, email, user id, password and confirms password from the user. All the inputs are mandatory and email address should be entered in standard format. Also, the values entered in the password and confirm password textboxes should be the same. For the security reasons make sure that the password entered by the contains both small	2			

	letters and capital letters, digits, special symbols also. If the given password does not contain all these give an error message to the user. After validating all the 1details using JavaScript display a message like "You have successfully entered all the details".				
8.	Design an XML document to store information about the student of SRM University AP. The information must include Roll No, Name, Branch, Year of Joining, and email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.	1			
9.	Develop a registration form with various graphical user component interfaces like Text boxes (Roll No), Text boxes (Name) option buttons (gender), Qualification (Check boxes), State (Combo), etc. and store the information given by the user into a MySql database using JSP.	2			
10.	Develop a webpage to display the details of a student. For this the user will enter Roll Number in the text box given and the details of that particular student should be retrieved from the database and display it on the same webpage. Use JSP to solve this problem.	2			
	Total Hours	15			