

22CSPE103		WEB TECHNOLOGY			SEMESTER VI			
PREREQUISITES		CATEGORY	PE	Credit		C		
Java Programming		Hours/Week	L	T	P	TH		
			3	0	0	3		
<b>Course Objectives:</b>								
1.	To understand about client- server communication and protocols used during communication.							
2.	To design interactive web pages using Scripting languages.							
3.	To learn Server side programming using Servlets and JSP.							
4.	To develop web pages using XML / XSLT.							
<b>UNIT I</b>	<b>WEB ESSENTIALS AND MARKUP LANGUAGES</b>			<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	
Web Essentials: Clients, Servers, and Communication. The Internet-Basic Internet Protocols -The World Wide Web-HTTP request message-response message-Web Clients Web Servers-Case Study. Markup Languages: XHTML. An Introduction to HTML History-Versions-Basic XHTML Syntax and Semantics-Some Fundamental HTML Elements-Relative URLs-Lists-tables-Frames-Forms-XML Creating HTML Documents-Case Study.								
<b>UNIT II</b>	<b>CSS AND CLIENT SIDE SCRIPTING</b>			<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	
Style Sheets: CSS-Introduction to Cascading Style Sheets-Features-Core Syntax-Style Sheets and HTML Style Rule Cascading and Inheritance-Text Properties-Box Model-Normal Flow Box Layout- Beyond the Normal Flow-Other Properties-Case Study. Client-Side Programming: The JavaScript Language-History and Versions Introduction to JavaScript in Perspective-Syntax-Variables and Data Types-Statements-Operators- Literals-Functions-Objects-Arrays-Built-in Objects - JavaScript Debuggers.								
<b>UNIT III</b>	<b>HOST OBJECTS AND SERVER SIDE SCRIPTING</b>			<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	
Host Objects: Browsers and the DOM-Introduction to the Document Object Model DOM History and Levels- Intrinsic Event Handling-Modifying Element Style-The Document Tree-DOM Event Handling-Accommodating Noncompliant Browsers Properties of window-Case Study. Server-Side Programming: Java Servlets- Architecture -Overview-A Servlet-Generating Dynamic Content-Life Cycle- Parameter Data-Sessions- Cookies- URL Rewriting-Other Capabilities-Data Storage Servlets and Concurrency-Case Study- Related Technologies.								
<b>UNIT IV</b>	<b>JSP and XML</b>			<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	
Separating Programming and Presentation: JSP Technology-Introduction-JSP and Servlets-Running JSP Applications Basic JSP-JavaBeans Classes and JSP-Tag Libraries and Files-Support for the Model-View-Controller Paradigm-Case Study-Related Technologies. Representing Web Data: XML-Documents and Vocabularies-Versions and Declaration-Namespaces JavaScript and XML: Ajax-DOM based XML processing Event-oriented Parsing: SAX-Transforming XML Documents-Selecting XML Data: XPATH-Template based Transformations: XSLT-Displaying XML Documents in Browsers-Case Study-Related Technologies.								
<b>UNIT V</b>	<b>AJAX AND WEB SERVICES</b>			<b>9</b>	<b>0</b>	<b>0</b>	<b>9</b>	
AJAX: Ajax Client Server Architecture –XML Http Request Object –Call Back Methods. Web Services: JAX-RPC- Concepts-Writing a Java Web Service-Writing a Java Web Service Client-Describing Web Services: WSDL- Representing Data Types: XML Schema-communicating Object Data: SOAP Related Technologies-Software Installation-Storing Java Objects as Files.								
<b>Total (45 L) =45 Periods</b>								

<b>Text Books:</b>	
1.	Jeffrey C. Jackson, "Web Technologies--A Computer Science Perspective", Pearson Education, 2011.

**Reference Books:**

1.	Robert. W. Sebesta, "Programming the World Wide Web", Fourth Edition, Pearson Education, 2012.
2.	Deitel, Deitel, Goldberg, "Internet & World Wide Web How To Program", Fifth Edition, Pearson Education, 2021.
3.	Marty Hall and Larry Brown, "Core Web Programming" Second Edition, Volume I and II, Pearson Education, Copyright 2010.

**Course Outcomes:**

Upon completion of this course, the students will be able to:		<b>Bloom's Taxonomy  Mapped</b>
CO1	Understand about client- server communication and protocols used during communication.	
CO2	Design of interactive Web pages using scripting languages.	L2,L3 and L4
CO3	Implement the Servlet and Server side programs(JSP)	L3
CO4	Develop web pages using XML / XSLT.	L3 and L4

**COURSE ARTICULATION MATRIX**

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	3	3	3	2	1		1	1			2	2	3	2
CO 2	3	3	3	2	1		1	1			2	2	3	2
CO 3	3	3	3	2	1		1	1			2	2	3	2
<b>Avg</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>		<b>1</b>	<b>1</b>			<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>
3 / 2 / 1 - indicates strength of correlation (3- High, 2- Medium, 1- Low)														