CODE	**Introduction To Web Technology**
Credits: 3 (3-0-0)	
Pre-requisite for this course:	**Should have prior experience in one programming language(C, C++, Java).**
Course Objective:	The course aims to: • Understanding the various concepts of HTML, CSS, XML, Java Script, Servlet, JSP • Understanding the various steps in designing a static and dynamic website using client and server side scripting. • Working on projects to gain practical knowledge about web development along with team work.
Course Outcome:	On completion of the course, a student should be able to: • Explain the history of the internet and related internet concepts that are vital in understanding web development. Analyze a web page and identify its elements and attributes • Demonstrate the important HTML tags for designing static pages and separate design from content using Cascading Style sheet. • Utilize the concepts of JavaScript to build dynamic website. • Use web application development software and identify the environments currently available on the market to design web sites. • Write server side programming using Servlet, JSP • Working on projects using web technologies.
Syllabus	
Module I **[12] Hours**	**The Web** Internet, Word Wide Web(WWW), History of the Internet, History of the Web, Protocols Governing the Web, Types of Websites, Web Applications, Web Projects, Web architecture, HTML, URL, HTTP, Issues in Web Development, Webserver, web browser, Internet standards, TCP/IP Protocol suite, MIME, Cyber Laws. Understand the need for HTTP, URL and it Anatomy, HTTP message format, Persistent and Non-persistent Connections, Web Caching, Proxy. **HTML** Introduction to HTML, Markup Language, HTML Tags, HTML Document Structure, HTML Comments, head, title, base, link, style,

	meta, script, Heading tags, paragraph, anchor, image, video, line breaks, text formatting, lists, frames, forms. **CSS** Inline Styles, Internal Style Sheet, External Style Sheet, Selectors, Colors, Backgrounds, Background Image, Background Attachment, Background Shorthand, Borders, Margins, Padding, Fonts, Links, Icons, Lists, Tables, Display, Position, Overflow, Float, inline-block, Horizontal & Vertical Align, Combinators, Pseudo-classes, Pseudo-elements, Opacity / Transparency, Navigation Bar, Dropdowns, Image Gallery, Attribute Selectors, Forms, Counters, Website Layout, Units, Specificity, Text Effects, Animations, Tooltip, Multiple Columns Static web project
Module II **[8] Hours**	**Java Script** Scripting: Java script: Introduction, statements, comments, variables, operators, documents, forms, , functions, objects, events, Strings, Numbers, Arrays, Date, Math, Random, Loops, Regxp, errors, this, Let, Const., classes, debugging . **The HTML DOM (Document Object Model)** Introduction ,DOM Methods, DOM Document, DOM Elements , DOM HTML, DOM CSS, DOM Events, DOM Navigation, DOM Nodes , DOM Nodelist **The Browser Object Model (BOM)** The Window Object, Window Size, Window History, Window Navigator, Browser Detection, JavaScript Timing Events, Cookies, Working on Cookies using Java script. **XML** Introduction to XML, XML vs HTML, Structures of a XML Document, Document Type Declaration (DTD), XML Validation, Well Formed XML Documents, Valid XML Document, XML DOM, XSL, XSL Transformation, XML Namespaces, XML Schema. **Project using HTML and Java Script**
Module III [10] Hours	**JSP** Server Side Programming: Introduction to Java Server Page (JSP), JSP Application Design, JSP objects, Conditional Processing, Declaring

	variables and methods, Sharing data between JSP pages, Sharing Session and Application Data, Database Programming using JDBC, development of java beans in JSP. **Servlet** Introduction to Servelets, Lifecycle, JSDK, Servlet API, Servlet Packages., **Project: End to End Web Project**
Suggested Books: [Minimum 4/5 Books] (Include E-books also, if any)	1. Xavier, C, "Web Technology and Design", New Age International. 2. Ivan Bayross," HTML, DHTML, Java Script, Perl & CGI", BPB Publication. 3. Ramesh Bangia, "Internet and Web Design", New Age International. 4. Patel and Barik,"Introduction to Web Technology & Internet", Acme Learning. 5. Uttam K. Roy, "Web Technologies", Oxford Publication. 6. Whitehead, Paul, and James H. Russell. HTML : Your Visual Blueprint for Designing Web Pages with HTML, CSS, and XHTML, John Wiley & Sons, Incorporated, 2005. ProQuest Ebook Central, https://search.proquest.com/legacydocview/EBC/353403?accountid=169702. 7. Eugene, Liang Yuxian. JavaScript Testing Beginner's Guide : Test and Debug JavaScript the Easy Way, Packt Publishing, Limited, 2010. ProQuest Ebook Central, https://search.proquest.com/legacydocview/EBC/944021?accountid=169702. 8. Gasston, Peter. Book of CSS3 : A Developer' s Guide to the Future of Web Design, No Starch Press, Incorporated, 2014. ProQuest Ebook Central, https://search.proquest.com/legacydocview/EBC/1842165?accountid=169702 . 9. Budi, Kurniawan. Servlet & JSP : A Tutorial, Brainy Software Inc., 2012. ProQuest Ebook Central, https://search.proquest.com/legacydocview/EBC/863641?accountid=169702.
Evaluation:	1. Quizzes: 15% 2. Mid Term: 30% 3. End Term Exam: 50% 4. Teacher's Assessment: 5%

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