Name of Department:- Computer Science and Engineering

1.	Subject Code:	TCS 693		Course Title:	Full Stack Web Development
2.	Contact Hours:	L: 3	T:	P:	

3. Semester: VI

4. Pre-requisite: TCS 408, TCS 503

- 5. Course Outcomes: After completion of the course students will be able to
 - 1. Describe the concepts of WWW including browser and HTTP protocol.
 - 2. List the various HTML tags and use them to develop the user-friendly web pages.
 - 3. Define the CSS with its types and use them to provide the styles to the web pages at various levels.
 - 4. Develop the modern web pages using the HTML and CSS features with different layouts as per need of applications.
 - 5. Use the JavaScript to develop the dynamic web pages.
 - 6. Use server-side scripting with PHP to generate the web pages dynamically using the database connectivity.
- 6. Detailed Syllabus

UNIT	CONTENTS	Contact Hrs
1	HTML Basics of HTML, formatting and fonts, commenting code, color, hyperlink, lists, tables, images, forms, XHTML, Meta tags, Character entities, frames and frame sets, Browser architecture and Web site structure. Overview and features of HTML5	
2	CSS Need for CSS, introduction to CSS, basic syntax and structure, using CSS, type of CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, Introduction to Bootstrap.	8
3	JavaScript and jQuery Client-side scripting with JavaScript, variables, functions, conditions, loops and repetition, Pop up boxes, Advance JavaScript: JavaScript and objects, JavaScript own objects, the DOM and web browser environments, Manipulation using DOM, forms and validations, DHTML: Combining HTML, CSS and JavaScript, Events and buttons. Introduction to jQuery. Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas,	10

UNIT	CONTENTS	Contact Hrs
4	PHP Introduction and basic syntax of PHP, decision and looping with examples, PHP and HTML, Arrays, Functions, Browser control and detection, string, Form processing, Files. Advance Features: Cookies and Sessions, Basic commands with PHP examples, Connection to server, creating database, selecting a database, listing database, listing table names, creating a table, inserting data, altering tables, queries, deleting database, deleting data and tables. XAMPP Server Configuration.	11
5.	Web Application Deployment Concept of WWW, Internet and WWW, HTTP Protocol: Request and Response, Web browser and Web servers, Features of Web 2.0. Concepts of effective web design, Web design issues including Browser, Bandwidth and Cache, Display resolution, Look and Feel of the Website, Page Layout and linking, User centric design, Sitemap, Planning and publishing website, Designing effective navigation, Introduction to CMS. Ajax, AngularJS, JSON.	8
	Total	45

Text/ Reference Books:

- 1. Ralph Moseley and M. T. Savaliya , "Developing Web Applications", , Wiley-India
- 2. "Web Technologies", Black Book, dreamtech Press
- 3. "HTML 5", Black Book, dreamtech Press
- 4. Joel Sklar, "Web Design", Cengage Learning
- 5. "Developing Web Applications in PHP and AJAX", Harwani, McGrawHill
- **6.** P.J. Deitel&H.M. ,"Internet and World Wide Web How to program", Deitel, Pearson