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| **Subject Name:** | | | | | | | | Full Stack Web Development | | | | | | | | | | | | | | | | | | **Subject Code:** | | | | | | TMC 305 | | | | |
| **Course Name:** | | | | | | | | Master of Computer Applications | | | | | | | | | | | | | | | | | |  | | | | | |  | | | | |
| **1** | **Contact Hours:** | | | | | | | | | | 45 | | |  | | | | | | | | | | | | | **L** | | 3 | | | | **T** |  | **P** |  |
| **2** | **Examination Duration(Hrs):** | | | | | | | | | | | | | | | |  | **Theory** | | | 0 | 3 |  | **Practical** | | | | 0 | |  | | |  | | | |
| **3** | **Relative Weightage:** | | | | | | | | | | |  | | | | **CWE:** | | | | 25 | **MTE:** | | | 25 | **ETE:** | | | | 50 | |  | | | | | |
| **4** | **Credits:** | | | | | | 0 | | 3 | |  | | | | | | | |  | |  | | |  |  | | | |  | |  | | | | | |
| **6** | **Pre-Requisite:** | | | | | | | | | | Familiarity to Internet, HMTL, Scripting and their applications | | | | | | | | | | | | | | | | | | | | | | | | | |
| **7** | **Subject Area:** | | | | | | | | | | Computer Science | | | | | | | | | | | | | | | | | | | | | | | | | |
| **8** | **Objective:** | | | | | | | | | To make student understand various technologies used for web development and deployment. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **9** | **Course Outcome:** | | | | | | | | | | | | After completion of the course students will be able to | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 1** | | | | | Identify the Basic Concepts of Web & Markup Languages | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 2** | | | | | Design effective web page layout using advance CSS features. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 3** | | | | | Develop web Applications using Scripting Languages & Frameworks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 4** | | | | | Creating Controller Working with and Displaying in Angular Js and Nested Forms with ng-form | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 5** | | | | | Working with the Files in React JS and Constructing Elements with Data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **CO 6** | | | | | Use server-side scripting with PHP to generate the web pages dynamically using the database connectivity. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **10** | | **Details of the Course:** | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | |
| **Unit No.** | | | | **CONTENT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **CONTACT HOURS** | | | |
| **1** | | | | **Importance of Full Stack:** Why Full Stack, Layers of Web Development Process, Who is a Full Stack Developer?, Components of Full Stack, HTTP, http request/response, XHR - XMLHTTPRequest Scope of Full Stack, Benefits of Full Stack | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **8** | | | |
| **2** | | | | **HTML 5**: Overview and features of HTML5, Syntax, Attributes, Events, Web Forms 2.0, MathML, SVG, canvas, Geo-location, Drag and drop, HTML5 Application Cache.  **CSS Advanced**: CSS visibility, positioning, layers, pseudo-classes, border images, rounded corners, gradients.2d and 3d transform, animation. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **10** | | | |
| **3** | | | | **Angular Js**: Introducing AngularJS, Starting Out with AngularJS, Basic AngularJS, Directives and Controllers, AngularJS Modules, Creating First Controller, working with and Displaying, Arrays, more Directives, working with ng-repeat, Unit Testing in AngularJS, Forms, Inputs, and Services, Working with ng-model, Working with Forms, Leverage Data-Binding and Models, Form Validation and States, Error Handling with Forms, ngModelOptions, Nested Forms with ng-form, Other Form Controls. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **10** | | | |
| **4** | | | | **React JS**: Introduction to React, Obstacles and Roadblocks, keeping Up with the Changes, Working with the Files, Pure React, Page Setup, The Virtual DOM, React Elements, React DOM, Children, Constructing Elements with Data, React Components, DOM Rendering, Factories | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **10** | | | |
| **5** | | | | **PHP:** 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. WAMP/XAMPP Server Configuration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **10** | | | |
|  | | | | **TOTAL** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **48** | | | |
|  | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | |
| **11** | | **Suggested Books:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | |
| **Sl. NO.** | | | **NAME OF AUTHERS/BOOKS/PUBLISHERS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **YEAR OF PUBLICATION** | | | |
| **1** | | | Ralph Moseley and M. T. Savaliya ,“Developing Web Applications”, , Wiley-India | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **2011** | | | |
| **2** | | | “Web Technologies”, Black Book, dreamtech Press | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **2018** | | | |
| **3** | | | “HTML 5”, Black Book, dreamtech Press | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **2016** | | | |
| **4** | | | AngularJS: Up and Running Enhanced Productivity with Structured Web Apps By Brad Green, Shyam Seshadri Publisher: O'Reilly Media, Inc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **2015** | | | |
| **5** | | | Learning React Functional Web Development with React and Redux By Alex Banks, Eve Porcello Publisher : O'Reilly Media, Inc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | |