

**MC5303 WEB PROGRAMMING ESSENTIALS**

DETAILED SYLLABUS

**OBJECTIVES:**

- To understand the concepts and architecture of the World Wide Web.
- To understand and practice mark-up languages
- To understand and practice embedded dynamic scripting on client-side Internet Programming
- To understand and practice web development techniques on client-side.

**UNIT I INTRODUCTION TO WWW**

Internet Standards – Introduction to WWW – WWW Architecture – SMTP – POP3 – File Transfer Protocol - Overview of HTTP, HTTP request – response — Generation of dynamic web pages.

**UNIT II UI DESIGN**

Mark-up Language (HTML5): Basics of Html -Syntax and tags of Html- Introduction to HTML5 -Semantic/Structural Elements -HTML5 style Guide and Coding Convention– Html Svg and Canvas – Html API's - Audio & Video - Drag/Drop - Local Storage - Web socket API– Debugging and validating Html.

**Cascading Style Sheet (CSS3):** The need for CSS – Basic syntax and structure Inline Styles – Embedding Style Sheets - Linking External Style Sheets - Introduction to CSS3 – Backgrounds - Manipulating text - Margins and Padding - Positioning using CSS - Responsive Web Design - Introduction to LESS/SASS

**UNIT III OVERVIEW OF JAVASCRIPT**

Introduction - Core features - Data types and Variables - Operators, Expressions, and Statements Functions - Objects - Array, Date and Math Related Objects - Document Object Model - Event Handling - Controlling Windows & Frames and Documents - Form validations.

**UNIT IV ADVANCED FEATURES OF JAVASCRIPT**

Browser Management and Media Management – Classes – Constructors – Object-Oriented Techniques in JavaScript – Object constructor and Prototyping - Sub classes and Super classes – Introduction to JSON – JSON Structure –Introduction to jQuery –Introduction to AJAX-Bootstrap - Bootstrap components.

**UNIT V PHP**

Introduction - How web works - Setting up the environment (LAMP server) – Programming basics Print/echo - Variables and constants – Strings and Arrays – Operators, Control structures and looping structures – Functions – Reading Data in Web Pages – Embedding PHP within HTML - Establishing connectivity with MySQL database.

**REFERENCES:**

1. David Flanagan, "JavaScript: The Definitive Guide, Sixth Edition", O'Reilly Media, 2011
2. Harvey & Paul Deitel & Associates, Harvey Deitel and Abbey Deitel, "Internet and World Wide Web - How to Program", Fifth Edition, Pearson Education, 2011
3. James Lee, BrentWare, "Open Source Development with LAMP: Using Linux, Apache, MySQL, Perl, and PHP" Addison Wesley, Pearson 2009
4. Thomas A. Powell, "HTML & CSS: The Complete Reference", Fifth Edition, 2010
5. Thomas A Powell, Fritz Schneider, "JavaScript: The Complete Reference", Third Edition, Tata McGraw Hill, 2013
6. Thomas A Powell, "Ajax: The Complete Reference", McGraw Hill, 2008