

**Kavayitri Bahinabai Chaudhari North Maharashtra University
Jalgaon, Ordinance 181**

College Name : - Institute of Management Research and Development,
Shirpur

Title of the Course : - **Certificate Course in Full Stack Development**

Aims / Objective : - To introduce various languages useful for web designing and Website scripting.

Duration of the Course : - 1 Year

Course Structure :- 1) Paper I - Web Design using HTML & CSS
2) Paper II - Web scripting using Java script & J-query
3) Paper III- Practical on Full stack development

Eligibility of the Course: - Student passed in the Higher Secondary Examination (HSC) (10+2) or equivalent examination.

| SN | Paper | Name of the subject | Theory / Practical | Teaching Hours | Maximum Marks Allotted | | | Passing | | | Credit |
|----|-----------|---------------------|--------------------|----------------|------------------------|-----|-------|---------|-----|-------|--------|
| | | | | | Ext | Int | Total | Ext | Int | Total | |
| 01 | Paper I | WDHC | THEORY | 90 | 60 | 40 | 100 | 24 | 16 | 40 | 6 |
| 02 | Paper II | WSJJ | THEORY | 90 | 60 | 40 | 100 | 24 | 16 | 40 | 6 |
| 03 | Paper III | PFSD | PRACTICAL | 120 | 60 | 40 | 100 | 24 | 16 | 40 | 8 |

Minimum Staff : - 03 Three

Mode of Examination : - English (Theory & Practical)

Detailed Syllabus : - Attached

Paper – I Web Design using HTML & CSS (90 Hrs.)

Unit 1: - Introduction to HTML (20Hrs.)

HTML Structure, Doctype, Formatting Tags, Images, Tables, Div, Paragraph, Span, Pre Tags, Anchor Links, Line Breaks and Horizontal Lines. Lists, Iframe Tag, Form Tag, POST and GET Method, Field set and Legend.

Unit 2: - HTML Controls (15Hrs.)

Text input, Text area, Checkbox and Radio Button, Dropdown, List, File Upload and Hidden Fields, Submit, Normal, Reset Button.

Unit 3:- HTML5 (18Hrs.)

Introduction to HTML5, XHTML vs HTML5, Features of HTML5, HTML5 DocType, New Structure Tags, Section, Nav, Article, Aside, Header, Footer, New Media Tags, Canvas and Svg Tag, I Introduction to HTML5 Forms, voice search

Unit 4:- Cascading Style Sheet (22Hrs.)

Introduction to CSS, CSS Selectors: Universal Selector, ID Selector, Tag Selector, Class Selector, Sub Selector, CSS Properties: Type Properties, Background Properties, Block Properties, Box Properties, List Properties, Border Properties, Positioning Properties, External and Inline CSS

Unit 5:- Introduction to CSS3 (15Hrs.)

CSS 3 Selectors, CSS3 Properties, CSS Gradients, Opacity Property, Transition effect, Transform effect, Animation effects

References :

- 1.HTML, CSS, & JavaScript for Dummies. Tittel, E., Holland, E., Minnick, C. (2018). John Wiley & Sons.
- 2.HTML5 Programmer's Reference. Reid, J. (2015). Apress
- 3.Beginning HTML and CSS, Rob Larsen ISBN: 9781118340189
- 4.Beginning HTML, XHTML, CSS, & JavaScript, Jon Duckett ISBN: 9780470540701

Paper – II Web scripting using Javascript & JQuery (90 Hrs)

UNIT I Introduction to Javascript :- (10Hrs)

Basic HTML and CSS Knowledge,
Basic Text Editor and Web Browser Knowledge,
Object Based, Client Side, Scripting Language.

UNIT II Placing javascript in HTML :- (10Hrs)

Using the HTML Script Tags, Identifying the Scripting Language, Calling External,
using `<noscript></noscript>` Tags, Creating Your First Script, Writing a “Hello World” Script.

UNIT III Variables and Operators:- (20Hrs.)

Variables: Understanding Variables, Why Variables Are Useful, Variables as
Placeholders for Unknown Values, Variables as Time-Savers, Variables as Code
Clarifiers, Defining Variables for Your Scripts, Declaring Variables, Assigning Values to
Variables, Naming Variables, Understanding Variable Types. Operator: Operator Types,
Mathematical Operators, Assignment Operators, Comparison Operators,
Logical Operators, Special Operators, Order of Operations.

UNIT IV Conditional Statements and Loops:- (15Hrs.)

Defining Conditional Statements, Using Conditional Statements,
Defining Loops, Using Loops, using break and continue.

UNIT V Functions and Events :- (10Hrs)

Functions: What a Function Is, Why Functions Are Useful, Structuring Functions,
Calling Functions in Scripts. Event Handlers: What Is an Event Handler?
Why Event Handlers Are Useful, Understanding Event Handler Locations and Uses,
Learning the Event Handlers, Creating Scripts Using Event Handlers

UNIT VI: - Basics of JQuery:- (10Hrs.)

Introduction, Selectors: The `$()` Function, Use of Selectors, Element Name Selector,
Element ID Selector, Element Class Selector, Universal Selector, Multiple Elements Selector.

UNIT VII: - JQUERY Effects:- (10Hrs.)

Showing and Hiding Elements, Toggling the Elements,
jQuery Effect Methods, UI Library Based Effects.

References:

1. Beginning JavaScript, 4th Edition Paul Wilton, Jeremy McPeak, WROX Publication, ISBN: 9780470525937
2. Professional JavaScript for Web Developers, 3rd Edition, Nicholas C. Zakas WROX Publication, ISBN - 0764579088
3. Learning jQuery -Jonathan Chaffer ,4th Edition, Packt Publishing,ISBN: 9781782163145
4. JQuery Essentials- Troy Miles, Packt Publishing Ltd, ISBN – 9781785282652

Paper – III Practical on Full stack development

(120 Hrs)

1. Create a HTML document to display “Hello World” to demonstrate File creation & HTML Form structure.
2. Create a HTML document to demonstrate Use of The <H> Tag (h1 to h6).
3. Create a HTML document to demonstrate commonly used HTML Tags.
4. Create a HTML document to demonstrate The Text Attributes.
5. Create a HTML document to demonstrate Adding Images to HTML.
6. Create a HTML document to demonstrate Lists
7. Create a HTML document to demonstrate Tables, Table Attributes.
8. Create a HTML document to demonstrate Registration form.
9. Create a HTML document to demonstrate Table and Forms With CSS.
10. Create a HTML document with HTML tags and apply CSS for Font Faces, Manipulating the display of Text, Background Colors and Images.
11. Create a HTML document using JavaScript to demonstrate Conditional Statements & Lopping Statements
12. Create a HTML document using Functions with and without Arguments, function returning value and no value return.
13. Create a HTML document using JavaScript to demonstrate Event Flow & Event Handlers, The Event Object, Event Types
14. Create a HTML document to demonstrate show, hide and Toggle effect in JQuery.
15. Create a HTML document to Demonstrate SlideUP , SlideDown and SlideToggle effect in Query.

References:

1. Bootstrap: Responsive Web Development. Spurlock, J. (2013). OReilly Media.
2. Professional AngularJS. Karpov, V., Netto, D. (2015). Wiley.
3. Beginning JSON. Smith, B. (2015). Apress.
4. Professional Node.js: Building Javascript Based Scalable Software. Teixeira, P. (2012). Wiley.
5. Beginning Node.js by Basarat Ali Syed, Apress.
6. Node.JS Web Development by David Herron, packt publication
7. MongoDB Fundamentals, Packt Publication , ISBN-13: 978-1839210648