



(A Venture of Chandigarh ETC Services Pvt. Ltd.)

An ISO 9001:2015 Certified Organisation with Completely Online Management System

Website : www.citcchandigarh.com

Course Syllabus: Diploma in Web Technology

Batch Name: DWT

Eligibility: 10th

Course Start: 1st of Every Month

Course Duration: 350 Hours

Courses / Modules Paper

Module 1

Paper 1
Introduction Web Technologies

Module 2: Opt Any Three Papers

Paper 1	Paper 2	Paper 3	Paper 4
PhotoShop	Flash	HTML	CSS, Bootstrap

Paper 5	Paper 6	Paper 7
Java Script	Jquery	PHP, MySQL

Module 1

Paper 1: Introduction Web Technologies

1: Web Technologies Overview

- 1.1 What are Web Technologies?
- 1.2 Types of Web Technologies
 - HTML
 - CSS
 - Bootstrap
 - JavaScript
- 1.3 Content Management System
- 1.4 Types of CMS
 - Joomla
 - Drupal
 - WordPress

2: Web Technology Terms

- 2.1 Domain Names
- 2.2 Web Hosting
- 2.3 Web Servers
 - Apache Web Server
 - Internet Information Services (IIS)
 - Lighttpd
- 2.4 Editors
 - Notepad
 - Dreamweaver
 - Other Developing Tools

3: Operating System

- 3.1 Introduction to Windows
- 3.2 Changing Desktop Background
- 3.4 Changing Window Color
- 3.5 Changing Screen Saver
- 3.6 Changing Screen Resolution
- 3.7 Windows 7 vs Windows 10
- 3.8 Introduction to Linux
- 3.9 Components of Linux OS
 - Kernel
 - System Library
 - System Utility
- 3.10 Architecture of Unix OS

Module 2

Paper 1: PhotoShop

1: Introduction to Photoshop

- 1.1 Introduction
- 1.2 Navigating Photoshop
- 1.3 Menus and Panels
- 1.4 Opening new file
- 1.5 Opening existing file

2: Getting started with Photoshop

- 2.1 Exploring the Toolbcx
- 2.2 Application Bar and option Bar
- 2.3 Exploring panels and menus
- 2.4 Creating and Viewing a new document
- 2.5 Customizing the interface
- 2.6 Setting Preferences

3: Working with Images

- 3.1 Zooming and panning Images
- 3.2 Working with Multiple images
- 3.3 Undoing steps with history
- 3.4 Adjusting Color with new Adjustments Panel
- 3.5 The new Master page
- 3.6 The new note Tool
- 3.7 Auto-Blend and Auto-Align Layers Command
- 3.8 3D commands

4: Resizing and Cropping Images

- 4.1 Understanding Pixels and resolution
- 4.2 The Image size Command
- 4.3 Interpolation Option
- 4.4 Resizing for print and web
- 4.5 Cropping and Straightening an Image
- 4.6 Adjusting Canvas size and canvas rotation

5: Working with basic selection

- 5.1 Selection with Elliptical Marque tool
- 5.2 Using Magic Wand and Free Transform Tool
- 5.3 Selection with Regular and Lasso Tool
- 5.4 Combining selection
- 5.5 Using Magnetic Lasso tool

- 5.6 Using Quick Selection Tool
- 5.7 Modifying Selections

6: Getting Started with Layers

- 6.1 Understanding the Background Layer
- 6.2 Creating, Selecting, Linking and Deleting the Layers
- 6.3 Locking and Merging Layers
- 6.4 Copying Layers, Using Perspective and Layer
- 6.5 Filling and Grouping Layers
- 6.6 Introduction to Blending Modes
- 6.7 Blending Modes, Opacity and Fill
- 6.8 Creating and Modifying Text

7: Printing in Photoshop

- 7.1 Using the Brush tool
- 7.2 Working with Color and Swatches
- 7.3 Creating and using Gradients
- 7.4 Creating and working with Brushes
- 7.5 Pencil and Eraser Tools
- 7.6 Painting with Selection

8: Photo Retouching

- 8.1 The Red Eye Tool
- 8.2 The Clone Stamp Tool
- 8.3 The Patch Tool & Healing Brush Tool
- 8.4 The Spot Healing Brush Tool
- 8.5 The Color Replacement Tool
- 8.6 The Toning and Focus Tool

9: Color Correction

- 9.1 Color Spaces and Color Modes
- 9.2 The Variation Command
- 9.3 Auto Commands
- 9.4 Adjusting Levels
- 9.5 Adjust Curves, Non Destructively with Adjustment Layers

10: Using Quick Mask Mode

- 10.1 Quick Mask Option
- 10.2 Painting a Selection
- 10.3 Saving and Removing a Selection

11: Working With Pen Tool

- 11.1 Understanding Paths and Pen Tool
- 11.2 Creating Straight and Curve Paths
- 11.3 Creating Combo Paths
- 11.4 Creating Clipping Paths

12: Special Effects

- 12.1 Getting Started With Photoshop Filters
- 12.2 Smart Filters
- 12.3 Creating Text Effects
- 12.4 Applying Gradient to Text

Paper 2: Flash

1: Introduction to Flash

- 1.1 What is Adobe Flash ?
- 1.2 Installing Flash
- 1.3 Starting Flash and Open Files
- 1.4 Understanding the Document Type
- 1.5 Using the Properties Inspector
- 1.6 Using the Tool Panel
- 1.7 Previewing Your Movie
- 1.8 Modifying the Content
- 1.9 Saving Your Movie
- 1.10 Checking For Updates

2: Working with Graphics

- 2.1 Strokes and Fills
- 2.2 Creating Shapes
- 2.3 Making Selections
- 2.4 Editing Shapes
- 2.5 Bitmap and Gradient Fills
- 2.6 Creating Curves
- 2.7 Creating Transparencies
- 2.8 Aligning and Distributing Objects
- 2.9 Converting and Exporting Art

3: Working with Symbols and Animation

- 3.1 Creating Symbols
- 3.2 Editing and Managing Symbols
- 3.3 Animating Symbols
- 3.4 Animating Position
- 3.5 Animating Transparency
- 3.6 Animating Filters
- 3.7 Animating Transformations
- 3.8 Animating 3D Motion
- 3.9 Animating Shapes
- 3.10 Creating and Using Masks

4: Creating Interactive Navigation

- 4.1 About Interactive Movies
- 4.2 Creating Buttons
- 4.3 Preparing the Timeline
- 4.4 Adding a Stop Action
- 4.5 Creating Event Handlers for Buttons
- 4.6 Creating a Home Button with Code Snippets
- 4.7 Playing Animation at the Destination
- 4.8 Animated Buttons

5: Using Text

- 5.1 When and Where to Add Text
- 5.2 Understanding Text Type
- 5.3 Adding Simple Text
- 5.4 Adding Paragraphs
- 5.5 Hyper-linking Text
- 5.6 Creating User-Input Text

6: Sound and Video

- 6.1 Using Sounds
- 6.2 Understanding Flash Video
- 6.3 Understanding Encoding Options
- 6.4 Playback of External Video
- 6.5 Working with Video and Transparency
- 6.6 Embedding Flash Video
- 6.7 Exporting Video from Flash

7: Publishing

- 7.1 Understanding Publishing
- 7.2 Publishing for Flash Player
- 7.3 Publishing for HTML5
- 7.4 Using Classic Tweens
- 7.5 Exporting to HTML5
- 7.6 Inserting Java Script
- 7.7 Publishing a Desktop Application
- 7.8 Publishing for a Mobile Device

Paper 3: HTML

1: Starting with HTML

- 1.1 Introduction to HTML
- 1.2 What is HTML
- 1.3 HTML Versions
- 1.4 Web Browsers
- 1.5 HTML Editors
- 1.6 HTML Tags

2: HTML Images

- 2.1 HTML Images
- 2.2 alt attribute with images
- 2.3 style Attribute
- 2.4 Change the Height and Width of Image
- 2.5 Images as a Floating
- 2.6 HTML Images as a Link
- 2.7 Background Images
- 2.8 The <picture> Element
- 2.9 HTML Images vs Title Attribute

3: Links in HTML

- 3.1 Link
- 3.2 HTML Links
- 3.3 The Target Attribute
- 3.4 Images as Link
- 3.5 HTML Links Titles
- 3.6 External Paths
- 3.7 HTML Link Colors

4: HTML Lists

- 4.1 List
- 4.2 Types of Lists in HTML
 - Unordered List
 - Ordered List
 - Definition List

5: HTML Tables

- 5.1 Table Introduction
- 5.2 HTML Table-Adding Borders
- 5.3 HTML Table-Collapsed Borders
- 5.4 The Empty-cells Property
- 5.5 Table Heading Alignment
- 5.6 Cell Padding and Border Spacing
- 5.7 Cells that Span many Columns
- 5.8 Cells that Span many Rows
- 5.9 Adding a Caption
- 5.10 Table Styling

6: HTML Forms

- 6.1 The <form> Element
- 6.2 Text
- 6.3 Radio Button Input
- 6.4 The Submit Button
- 6.5 Attributes
- 6.6 Grouping Form Data with <fieldset>
- 6.7 The <select> Element
- 6.8 The <option> Element
- 6.9 Visible Values
- 6.10 Allow Multiple Selection
- 6.11 The <textarea> Element
- 6.12 The <datalist> Element
- 6.13 The Output Element
- 6.14 Input Type Password
- 6.15 Input Type Reset
- 6.16 Checkboxes
- 6.17 Input Type Color
- 6.18 Input Type Date
- 6.19 Input Type Email
- 6.20 Input Type Number
- 6.21 Input Type Range
- 6.22 Input Type Search
- 6.23 Input Type Tel
- 6.24 Input Type Time
- 6.25 Input type URL
- 6.26 Input Type Week
- 6.27 Input Attributes

7: HTML Blocks and Classes

- 7.1 HTML Blocks Introduction
- 7.2 The <div> Element
- 7.3 The Element
- 7.4 Using the Class Attribute
- 7.5 Using the id Attribute
- 7.6 HTML Iframes

Paper 4: CSS, BootStrap CSS

1: Starting with CSS

- 1.1 What is CSS?
- 1.2 CSS Syntax
- 1.3 CSS Selectors
 - The id Selector
 - The class Selector
- 1.4 Grouping Selectors
- 1.5 CSS Comments
- 1.6 CSS File Inclusion
- 1.7 Multiple Style sheets
- 1.8 Cascading Order

2: CSS Colors

- 2.1 CSS Colors
- 2.2 Background Color
- 2.3 Text Color
- 2.4 Border color
- 2.5 Color Values
- 2.6 RGB Values
- 2.7 HEX Value
- 2.8 HSL Value
- 2.9 Saturation
- 2.10 Lightness
- 2.11 RGBA Value
- 2.12 HSLA Value

3: CSS Background

- 3.1 CSS Backgrounds
 - Background Color
 - Background Image
 - Background-Shorthand Property

4: CSS Borders

- 4.1 CSS Borders
 - Border Style Property
 - Border width Property
 - Border Color Property
 - Border-Individual Sides
 - Border -Shorthand Property
 - Rounded Borders

5: CSS Margins

- 5.1 CSS Margins
- 5.2 Margin Properties
- 5.3 Margin-Shorthand Property
- 5.4 the Auto Value
- 5.5 The Inherit Value

6: CSS Padding

- 6.1 CSS Box Model
- 6.2 CSS Padding Properties
 - Padding-Top
 - Padding-Bottom
 - Padding-Left
 - Padding-Right
 - Padding
- 6.3 Giving only one value to Padding

7: CSS Text

- 7.1 CSS Text Properties
- 7.2 Types of CSS Text Properties
 - Color Property
 - Text-Align Property
 - Text-Decoration Property
 - Letter-Spacing Property
 - Word-Spacing Property
 - Text-Indent Property
 - Direction Property
 - White-Space Property
 - Line-Height Property
 - Text-Shadow Property
 - Text-Transform Property

8: CSS Font

- 8.1 CSS Font Properties
- 8.2 Types of CSS Font Properties
 - Font-Family Property
 - Font-Style Property
 - Font-Size Property
 - Font-Weight Property
 - Font-Variant Property
 - Font Property

9: CSS Lists

- 9.1 CSS List Properties
- 9.2 Types of CSS List Properties
 - List-Style-Type Property

- List-Style-Image Property
- List-Style-Position Property
- Marker -Offset Property
- List-Style Property

9.3 Styling with Colors

10: CSS Scrollbars

- 10.1 CSS Overflow/Scrollbar Properties
- 10.2 Types of Overflow Properties Values
 - Visible
 - Hidden
 - Scroll
 - Auto
- 10.3 Overflow-x and Overflow-y

11: CSS Tables

- 11.1 CSS Tables Properties
- 11.2 Types of CSS Table Properties
 - Border Property
 - Border-Collapse Property
 - Width and Height Property
 - Vertical Align Property
 - Border-Spacing Property
 - Caption-Side Property
 - Empty-Cells Property
 - Table-Layout Property
 - Border-Bottom Property
 - Zebra-Striped Property
- 11.3 :hover Selector

BootStrap

1: Introduction to Bootstrap

- 1.1 Introduction
- 1.2 What is Responsive Website?
- 1.3 Bootstrap Package
- 1.4 Advantages of Bootstrap
- 1.5 Bootstrap File Structure
 - Folders in Bootstrap File Structure
- 1.6 Structure of Bootstrap Page
- 1.7 Bootstrap Container

2: Bootstrap Grid System

- 2.1 Grid System
- 2.2 grid Classes
- 2.3 Grid Options
- 2.4 Structure of Bootstrap Grid

3: Bootstrap Typography/Text

- 3.1 Typography Introduction
- 3.2 Typography Elements
- 3.3 Contextual Colors and Backgrounds
 - .text-muted
 - .text-primary
 - .text-success
 - .text-info
 - .text-warning
 - .text-danger

4: Bootstrap Tables

- 4.1 Basic Table in Bootstrap
- 4.2 Striped Rows Table
- 4.3 Bordered Table
- 4.4 Hover Rows
- 4.5 Condensed Table
- 4.6 Contextual Classes in BS Tables
 - .active
 - .success
 - .info
 - .warning
 - .danger
- 4.7 Responsive Tables

5: Bootstrap Images

- 5.1 Bootstrap Image Classes
 - .img-rounded
 - .img-circle
 - .img-thumbnail
- 5.2 Responsive Images
- 5.3 Responsive Videos/Embeds

6: Bootstrap Jumbotron & Page Headers

- 6.1 Creating Jumbotron
 - Jumbotron Inside Container
 - Jumbotron Outside Container
- 6.2 Creating Page Headers

7: Bootstrap Alerts and Wells

- 7.1 Alert Classes
 - .alert-success

- .alert-info
- .alert-warning
- .alert-danger

- 7.2 Links in Alerts
- 7.3 Closing Alerts
- 7.4 Bootstrap Wells
- 7.5 Well Size

8: Bootstrap Buttons & Button Groups

- 8.1 Bootstrap Button Classes
- 8.2 Button Size
- 8.3 Button States
- 8.4 Block-Level Buttons
- 8.5 Button Groups
- 8.6 Vertical Button Group
- 8.7 Justified Button Groups

9: Bootstrap Progress Bar

- 9.1 Basic Progress Bar
- 9.2 Progress Bar with Label
- 9.3 Colored Progress Bar
- 9.4 Striped Progress Bar
- 9.5 Animated Progress Bar
- 9.6 Multicolor Progress Bar

10: BS Drop-Down & Navigation Bar

- 10.1 Basic Drop-down
- 10.2 Drop-down Headers
- 10.3 Active and Disable Items
- 10.4 Drop-down Position
- 10.5 Navigation Bars
- 10.6 Inverted Navigation Bar
- 10.7 Nav-bar with Drop-downs
- 10.8 Right-aligned Navigation Bar

11: Bootstrap Tabs and Pills

- 11.1 Bootstrap Menu
- 11.2 Bootstrap Tabs
- 11.3 Tabs with Drop-down Menus
- 11.4 Pills
 - Vertical Pills
 - Vertical Pills in a Row
 - Pills with Drop-down Menus

12: Bootstrap Form Inputs

- 12.1 Supported Form Controls
- 12.2 Bootstrap Inline Class
- 12.3 Input Sizing Classes
 - .input-lg
 - .input-sm

13: Bootstrap Popover

- 13.1 Creating Bootstrap Popover
- 13.2 Positioning Popover
- 13.3 Closing Popover

Paper 5: Java Script

1: Java Script Overview

- 1.1 What is Java Script ?
- 1.2 Client Side Java Script
- 1.3 Advantages and Disadvantages of JS
- 1.4 JS Syntax
- 1.5 Java Script Variables
 - Numbers
 - Strings
 - Boolean

2: Java Script Operators

- 2.1 Operators in JS
 - Arithmetic Operators
 - Comparison Operators
 - Logical Operators
 - Assignment Operators
 - Conditional Operators
 - Bitwise Operators
 - Typeof Operator

3: Java Script Statements

- 3.1 Control Statements
 - If Statement
 - If...else Statement
 - If...elseif Statement
- 3.2 Loop Control Statements
 - While Loop
 - Do While Loop
 - For Loop
 - For in Loop

4: Java Script Functions and Events

- 4.1 Define and Declare a Function
- 4.2 Calling a Function
- 4.3 Function Parameters
- 4.4 Return
- 4.5 Events in JavaScript
 - On Click Event
 - On Submit Event
 - On Mouse Over Event
 - On Mouse Out Event

5: Java Script Cookies

- 5.1 What are Cookies ?
- 5.2 Working of Cookies
- 5.3 Variables in Cookie
 - Name
 - Value
 - Expire
 - Path
 - Domain
 - Secure
- 5.4 Storing Cookies
- 5.5 Reading Cookies
- 5.6 Set the Expire Date of a Cookie
- 5.7 Deleting a Cookie

6: Java Script Dialog Boxes

- 6.1 Alert Dialog Box
- 6.2 Confirm Dialog Box
- 6.3 Prompt Dialog Box

7: JS Form Validation

- 7.1 What is Validation ?
- 7.2 Use of the Validation
- 7.3 Types of Validations
 - Basic Validation
 - Data Format Validation

Paper 6: JQuery

1: Introduction to jQuery

- 1.1 What is jQuery
- 1.2 Why jQuery
- 1.3 Add jQuery to Web Page
 - Download the jQuery library from JQuery.com
 - Include jQuery from a CDN
- 1.3 jQuery Syntax Overview

2: jQuery Selectors

- 2.1 The Element Selector
- 2.2 The #id Selector
- 2.3 The .class Selector
- 2.4 The Universal Selector
- 2.5 Multiple Elements Selectors

3: jQuery Events

- 3.1 What are jQuery Events
- 3.2 Types of jQuery Events
 - Mouse Event
 - Keyboard Event
 - Form Event
 - Document/Window Event
- 3.3 jQuery Event Methods

4: jQuery Effects

- 4.1 Types of jQuery Effects
 - Display Effects
 - Fading Effects
 - Sliding Effects
 - Other Effects
- 4.2 jQuery Chaining

5: jQuery Interactions

- 5.1 JQ Draggable
- 5.2 JQ Droppable
- 5.3 JQ Resizable
- 5.4 JQ Selectable
- 5.5 JQ Sortable

Paper 7: PHP, MySQL

PHP

1: PHP Introduction

- 1.1 What is PHP
- 1.2 Uses of PHP
- 1.3 Why PHP
- 1.4 Installing PHP

1.5 PHP Syntax Overview

- Basic PHP Syntax
- Comments in PHP
- PHP Echo and Print
- PHP Variables
- PHP \$ and \$\$

2: PHP Constants & Magic

- 2.1 PHP Constant Types
- 2.2 Creating Constant
- 2.3 Difference b/w Constant & Variable
- 2.4 Magic Constants
 - `__LINE__`
 - `__FILE__`
 - `__DIR__`
 - `__FUNCTION__`
 - `__CLASS__`
 - `__METHOD__`

3: PHP Operators

- 3.1 Types of PHP Operators
 - Arithmetic Operators
 - Assignment Operators
 - Comparison Operators
 - Increment/Decrement Operators
 - Logical Operators
 - String Operators
 - Array Operators

4: PHP Data Types

- 4.1 Data Types
- 4.2 Boolean
- 4.3 `is_bool` Function
- 4.4 `is_int()` Function
- 4.5 `is_float` Function
- 4.6 `is_null` Function

5: PHP Control Statements

- 5.1 PHP Decision Making Statements
 - `if..else` Statement
 - `if..elseif..if` Statement
 - `elseif` Statement
 - `Switch` Statement
- 5.2 PHP Loops
 - `For` Loop
 - `While` Loop
 - `Do while` Loop
 - `For Each` Loop
 - `The Break` Statement
 - `The Continue` Statement

6: PHP Arrays and Strings

- 6.1 Arrays
- 6.2 Creating an Array
- 6.3 Types of PHP Arrays
 - Indexed/Numeric Array
 - Associative Array
 - Multidimensional Array
- 6.4 Sorting Arrays
- 6.5 PHP Sort Array Functions
- 6.6 PHP Strings
- 6.7 PHP String Functions

7: PHP Functions & Superglobals

- 7.1 Creating and Calling PHP Function
- 7.2 Argument Passing Techniques
 - Pass by Value
 - Pass by Reference
- 7.3 PHP Recursive Function
- 7.4 PHP Superglobal Variables
 - `$GLOBALS`
 - `$_SERVER`
 - `$_REQUEST`
 - `$_POST`
 - `$_GET`
 - `$_FILES`
 - `$_COOKIE`
 - `$_SESSION`
 - `$_ENV`

8: Form Handling and File Inclusion

- 8.1 Collect Data from Form
 - By GET Method
 - By POST Method
- 8.2 Form Validation
- 8.3 PHP File Inclusion
 - `The include()` Function
 - `The require()` Function
 - Difference b/w `include()` and `require()`

9 PHP File Handling

- 9.1 File Handling Functions
- 9.2 Opening a File
- 9.3 Reading a File
- 9.4 Writing a File
- 9.5 Closing a File
- 9.6 Deleting a File

10: Cookie and Session

- 10.1 Creating Cookie
- 10.2 Setting Cookie
- 10.3 Deleting Cookie
- 10.4 PHP Sessions
- 10.5 Start PHP Session
- 10.6 Accessing Session Variable Values
- 10.7 Modifying Session Variable
- 10.8 Destroy a Session

11: PHP Exception Handling

- 11.1 What is an Exception
- 11.2 Try, Throw and Catch

12: Mail and File Uploading

- 12.1 Sending Mails
- 12.2 Sending HTML Mails
- 12.3 Creating an Upload Form

MySQL

1: Introduction to MySQL Database

- 1.1 What is MySQL?
- 1.2 Database Queries
- 1.3 Download MySQL Database
- 1.4 MySQL Syntax Overview

2: Working with MySQL Database

- 2.1 Connect to MySQL Database
- 2.2 Create Database
- 2.3 Select Database
- 2.4 Drop Database

3: Working with Tables and Views

- 3.1 Create Table
- 3.2 Alter Table
- 3.3 Truncate Table
- 3.4 Drop Table
- 3.5 MySQL Views

4: MySQL Queries

- 4.1 MySQL Queries Overview
- 4.2 Insert Record
- 4.3 Update Record
- 4.4 Delete Record
- 4.5 Select Record

5: MySQL Clauses and Joins

- 5.1 WHERE Clause
- 5.2 DISTINCT Clause
- 5.3 FROM Clause
- 5.4 ORDER BY Clause
- 5.5 GROUP BY Clause
- 5.6 HAVING Clause
- 5.7 MySQL Joins
 - INNER JOIN
 - LEFT OUTER JOIN
 - RIGHT OUTER JOIN

6: MySQL Conditions

- 6.1 AND Condition
- 6.2 OR Condition
- 6.3 AND OR Condition
- 6.4 LIKE Condition
- 6.5 IN Condition
- 6.6 NOT Condition
- 6.7 IS NULL Condition
- 6.8 IS NOT Condition
- 6.9 BETWEEN Condition

7: MySQL Aggregate Function

- 7.1 `count()` Function
- 7.2 `sum()` Function
- 7.3 `avg()` Function
- 7.4 `min()` Function
- 7.5 `max()` Function
- 7.6 `first()` Function
- 7.7 `last()` Function

8: MySQL Transactions

- 8.1 Transactions Overview
- 8.2 Properties of Transactions
 - Atomicity
 - Consistency
 - Isolation
 - Durability
- 8.3 COMMIT and ROLLBACK Keywords