**UI Technologies Course Content**

**Introduction to UI Technologies**

* UI Developer roles and Responsibilities
* UX designer roles
* Technologies needed
* Power of UI
* Current market requirements on UI
* Sample Web pages
* Crawling and meta tags

**Basics**

* DOM
* Structure of HTML Page
* Mandatory tags in the HTML page (HTML, head, body)
* What is CSS
* Different ways of applying CSS for elements, and priority chain of CSS
* Heading tags(H1…H6), Tags and attributes(Class, Id, style..etc)
* Inline and block-level elements

**More Tags in HTML**

* Including external page links in a page using anchor tags and its properties
* Working with row and column data using table tags
* Hiding and unhiding elements using display property
* image tag, p tag, ul and ol tags, li, nobr, hr, br etc
* Layouts, forms, buttons
* Input fields (textbox, radio button, checkbox, dropdown, text area etc)

**More CSS properties**

* Adding borders, font, pseudo classes
* Positioning elements (absolute, relative, fixed and static)
* Image spriting
* Box model (margins, padding)
* Floating elements (float left, right etc.)
* Including external resources
* Absolute and Relative Paths
* Including external resources like CSS, images etc

**Form Elements**

* Get & Post
* Validating input values in a form
* Form action and type

**JavaScript**

* Introduction
* Data types and data structures in Js
* Control structures, if, if-else, while, for, switch case statements
* Dynamic creation and manipulation of dom elements using js
* Adding dynamic event listeners to dom elements
* Event capturing and event bubbling
* Validations using key char codes

**JavaScript Supported Data structures**

* Arrays
* Predefined methods in arrays
* Strings and predefined methods
* Objects
* JSON

**Advanced JavaScript**

* Prototyping in JavaScript
* Closures in JavaScript
* Inheritance in JavaScript
* Adding methods for an object

**jQuery Framework**

* Onload and onready diffrence
* jQuery selectors
* Multiple ways of refering dom elements using jQuery selectors
* jQuery methods
* Adding dynamic properties for dom elements
* Toggleing elements
* Creating dynamic elements using jQuery

**jQuery Traversing Methods**

* Finding elements using jQuery techniques
* Filtering elements

**Events using jQuery**

* Binding events
* Dynamic binding
* List of events been supported in jQuery(blur, change, click, dbclick….etc)

**AJAX**

* Advantages with Ajax and its limitations
* Samples working with Ajax
* Different data formats used in Ajax (string, xml, Json, etc)
* XML and JSON difference
* Crossdomain interactions using JSONP

**jQuery Templating**

* Loading DOM dynamically using jQuery templates
* loading templates using AJAX

**HTML5**

* Difference between **HTML**5 and HTML 4
* List of Browsers support HTML5
* Doctype
* Media tags (audio and video tags)
* Graphics using Canvas tag
* Drag and Drop features
* Working on locations lat and lng using Geolocation
* Storing userpreferences using Localstorage.

**CSS 3**

* Difference between CSS2 and CSS3
* Adding borders and backgrounds
* Advanced text effects(shadow)
* 2D and 3D Transformations
* Adding Transitions to elements
* Adding animations to text and elements

**Responsive Designs**

* Difference between multiple devices, making a page to work on multiple devices
* Media queries
* Introduction to Bootstrap CSS API(2hrs)

**AngularJS Framework**

* Introduction
* Power of ngjs
* Controllers and modules in ngs with sample program
* Data binding with sample program
* What is filter and adding filters to dom elements with sample code
* Loading multiple page content into a single page using ng-routing – Working example
* Developer Tools Addons
* Firebug, chrome and IE Developer tools