

# **Mastering Modern Web Development using HTML5, CSS3, JQuery and More (with Advanced Topics) (TT4600)**

**Modality: Virtual Classroom**

**Duration: 4 Days**

## **About this course:**

Learning Web Development utilizing JQuery, CSS3, HTML5, (with Specialized Topics) Discussing User interface Techniques, Methodologies & More is an in-depth web design/development training program for software developers who want to learn the latest techniques and methodologies in web technology, optimization, performance, and UI design. This detailed course offers a dynamic combination of theory and hands-on labs intended to take participants through CSS3, HTML5, and related technologies. Learners completing this training will use the latest skills to design, execute and implement reliable, scalable and stable web apps.

The Web Developer can earn an average salary of \$74,110 per annum.

## **Course Objective:**

This online training offers indoctrination in the practical implementation of the umbrella of technologies that are at the forefront of web creation. Students will discover:

- What is CSS3, what's new, and how it's used in Web apps
- Introduction about jQuery and why and when do we use it
- Best methods to use jQuery because it functions unobtrusively and does well
- What is HTML5, what's new and how it's used in web apps
- Web-based user interface templates, terminology, and deployment options
- The broad range of choices, methods, and strategies that can be used while designing and implementing the web
- JQuery extensions and plugins to boost the apps
- How jQuery eliminates code and adds a wealth of features to new and existing web pages
- How to apply UI patterns that incorporate a specific case study in web development

## **Audience:**

- It is an intermediate and beyond-level web development program intended for professional developers who want to broaden their web development and design skills immediately or need to improve sound CSS and HTML coding practices. This style of programming is hands-on.

## **Prerequisite:**

- The participants will have prior or current experience in designing software apps, and also fundamental CSS and HTML. Real expertise in a programming environment is a must.

## **Course Outline:**

### **Module 1: HTML5**

#### **Lesson: HTML5**

- HTML5 Design Principles
- HTML5 ? New Features
- HTML5 Semantic Tags
- HTML5 Forms ? New Features
- HTML5 Media
- Media API Methods and Events

#### **Lesson: HTML5 JavaScript API**

- Drag and Drop API
- Messaging API
- Web Storage API

### **Module 2: CSS3**

#### **Lesson: CSS3 Overview**

- CSS3 New Features
- CSS3 Browser Support
- CSS3 Selectors Support
- CSS3 Properties Support

#### **Lesson: CSS3 Advanced Selectors**

- Attribute Selectors
- Combinators
- Pseudo-Class Selectors
- UI Selectors

#### **Lesson: CSS3 Visual Effects**

- 2D Transformations
- Transitions
- Font and Color in CSS3
- Border and Other Effects

### **Module 3: jQuery**

#### **Lesson: Why jQuery?**

- JavaScript Evolution
- Why jQuery?

- jQuery Usage
- Downloading jQuery

## **Lesson: Basic jQuery**

- jQuery: Operational Overview
- jQuery Capability Overview
- Basic Selectors
- Multiple Selector
- Selecting by Order

## **Lesson: Manipulating the DOM**

- Attributes vs. Properties
- CSS Box Model Properties
- Element Content
- Manipulating Children
- Wrapping and Unwrapping
- Effects (Basic Animation)
- Effects Queues

## **Lesson: More On Element Selection**

- Hierarchical Selectors (Combinators)
- Attribute Selectors
- Basic vs. Child Filters
- Filtering Methods
- Traversing Methods

## **Module 4: JavaScript Object Notation (JSON)**

### **Lesson: JSON Objects**

- Arrays
- Objects
- Arrays in Objects
- Objects in Arrays

### **Lesson: JSON Syntax and Processing**

- JSON Parsers
- Sending Data
- JSON vs XML

## **Module 5: Web Application Performance**

### **Lesson: Download Options**

- User Experience on Page Load
- Multi-Stage Downloading
- Predictive Fetching
- On-Demand Downloading
- JavaScript and CSS Minification
- Lesson: JavaScript Best Practices (Optional)
- JavaScript Code Conventions
- Formatting and Structure
- Variable and Function Declarations
- Statement Conventions
- Best Practices and Principles

## **Lesson: Debugging, Optimization & Profiling**

- Internet Explorer Developer Tools
- FireBug & FireBug Lite
- Fiddler
- Code Optimization
- CSS and Reflow Minimization

## **Lesson: Memory Management**

- JavaScript Memory
- Removal of DOM Nodes
- Cyclic References
- Reusing DOM Nodes

## **Module 6: Web App Design Patterns**

### **Lesson: UI Patterns Overview**

- User Interface/Interaction Design Patterns
- Categories from Yahoo! Design Pattern Library
- Web Application Design Principles

### **Lesson: Layout Patterns**

- Page Grids
- Page Grids Solution

### **Lesson: Navigation Patterns**

- Accordion
- Alphanumeric Filter Links
- Breadcrumbs
- Item Pagination
- Search Pagination
- Module Tabs

- Navigation Tabs
- Progress Bar

## **Lesson: Selection Patterns**

- AutoComplete
- Calendar Picker
- Carousel

## **Lesson: Rich Interaction Patterns**

- Invitations
- Transitions
- Drag and Drop
- Rich Interaction

## **Module 7: jQuery Plugins (Optional)**

### **Lesson: jQuery UI**

- jQuery UI Effects
- Advanced Easing
- Interactions
- Position Utility
- Widgets
- Icons

### **Lesson: jQuery Plugins**

- jQuery Validation Plugin
- jQuery Form plugin
- jQuery BBQ (Back Button & Query) Plugin
- jQuery Hotkeys Plugin
- jQuery Color Plugin

### **Lesson: Templates**

- Micro Templates
- jQuery Template Plugin
- Compiling Templates
- Template Items

## **Module 8: Mobile Development (Optional)**

### **Lesson: Challenges for Mobile Development**

- What is the Difference?
- Mobile Web Applications

- Native Code Generators
- Native Web Runtime (NWR)
- Design Tools
- Data and Language Options
- Security