



Course Summary

jQuery is a fast and concise JavaScript Library that simplifies the time and expertise needed to manually write JavaScript to perform HTML document traversing, event handling, animation, and Ajax interactions. Simply put, jQuery is designed to change the way that you write JavaScript!

This course will expose web developers to what jQuery is and how to obtain it, how jQuery can simplify normally complex tasks, the syntax and key concepts of jQuery, as well as how to best utilize it.

Intended Audience:

This course is designed for current web developers who focus on the “front-end” or client-side of the web development process. Developers with strong (X)HTML, CSS, and JavaScript skills and experience are the target audience.

Prerequisites:

To ensure the best learning experience for all participants, the following pre-requisites **must be met** in order to participate in this course:

- Successful completion of, or complete familiarity with the topics in: “**Advanced HTML, XHTML, & CSS**”
- Successful completion of, or complete familiarity with the topics in: “**Advanced JavaScript**”

Course Contents:

Introducing jQuery

- What is jQuery?
- Downloading jQuery
 - “Minified” vs. Compressed jQuery
 - Using A Content Delivery Network (CDN)
- The `jQuery()` Object and the `$()` Alias
- jQuery Concerns & Best Practices
 - Performance vs. Ease
 - The `.each` Wrapper Method

jQuery Selectors

- Review of Cascading Style Sheet (CSS) Selectors
 - Element, Class, & ID Selectors
- Attribute-Based Selectors
- Position-Based Selectors
- Filter-Based Selectors
- Form Element Selectors
- Filtering Selectors
- Wrapped Element Sets

Wrapper Methods & Method Chaining

- Honing The Wrapped Set
- Wrapper Methods vs. Selector Filters
- Callback Functions As Method Parameters
 - `this` Context

jQuery Utility Functions

- The jQuery Flags
- Looping with `jQuery.each()`
- `jQuery.parseJSON()`
- `jQuery.map()`
- `jQuery.trim()`

CSS & DOM Manipulations With jQuery

- Getting & Setting CSS Properties
- Adding/Removing CSS Classes To/From Elements
- Adding and Removing DOM Elements Using jQuery
- Creating DOM Fragments
- Getting & Setting Attribute Values
- Appending, Prepending, Wrapping, & Cloning Elements
- Accessing The HTML and Text of an Element

jQuery and Events

- The `$(document).ready` Event Handler
- Binding & Unbinding Event Handlers to Elements
- Creating One-Shot Event Handlers
- Creating Event Handlers For Elements That Don't Exist Yet
- Retrieving Event-Specific Data

Ajax Requests with jQuery

- Ajax Request Without jQuery
- GET & POST Requests With jQuery
- Incorporating Form & Cookie Data Into Ajax Requests
- Consuming Ajax Responses
 - Plain Text, HTML, XML, & JSON
- Retrieving Headers From The Response
- Providing Status Messages While Ajax Runs

jQuery And The User Interface

- Animations
 - Showing, Hiding, Fading, & Sliding Elements
 - The `.animate()` Method
- jQuery UI
 - Configuring Your Library For Download
 - “Installing” The Library
 - Implementing The Library
 - Core
 - Interactions
 - Widgets
 - Events

Profiling & Debugging jQuery (overview)

- The Internet Explorer Developer Tools
- FireBug & FireBug Lite

jQuery Plugins

- What is A jQuery Plug-In?
- Creating A Custom Plug-In
- “Installing” A Plugin
- Implementing A Plugin

Using jQuery In Conjunction With Other Libraries

- The `jQuery.noConflict()` Function