uCertify

# Course Outline

## CIW: JavaScript Specialist (1D0-735)




28 Mar 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

   Syllabus

   Chapter 1: Introduction to JavaScript

   Chapter 2: Working with Variables and Data in JavaScript

   Chapter 3: Functions, Methods and Events in JavaScript

   Chapter 4: Debugging and Troubleshooting JavaScript

   Chapter 5: Controlling Program Flow in JavaScript

   Chapter 6: The JavaScript Document Object Model (DOM)

   Chapter 7: JavaScript Language Objects

   Chapter 8: Custom JavaScript Objects

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   Chapter 10: Developing Interactive Forms with JavaScript

   Chapter 11: JavaScript Security

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   Here's what you get

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## 1. Course Objective

Kick start your prep for the CIW 1D0-735 exam with the CIW JavaScript Specialist course. The lab is cloud-based, device-enabled, and can easily be integrated with an LMS. This online JavaScript course and lab provide complete coverage of the 1D0-735 exam objectives and helps in mastering essential JavaScript principles and practices; intermediate JavaScript programming techniques applied for JavaScript technology extensions.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

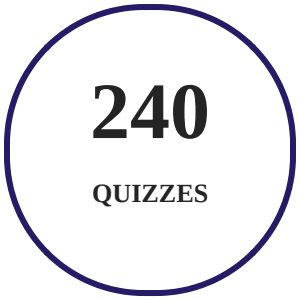
## 3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



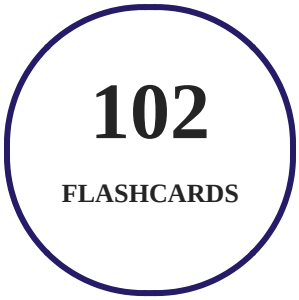

## 4. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.




## 5. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.




## 6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 7. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 8. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 9. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 10. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been

recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
    1. Best Postsecondary Learning Solution

- **2015**
    1. Best Education Solution
    2. Best Virtual Learning Solution
    3. Best Student Assessment Solution
    4. Best Postsecondary Learning Solution
    5. Best Career and Workforce Readiness Solution
    6. Best Instructional Solution in Other Curriculum Areas
    7. Best Corporate Learning/Workforce Development Solution

- **2016**
    1. Best Virtual Learning Solution
    2. Best Education Cloud-based Solution
    3. Best College and Career Readiness Solution
    4. Best Corporate / Workforce Learning Solution
    5. Best Postsecondary Learning Content Solution
    6. Best Postsecondary LMS or Learning Platform
    7. Best Learning Relationship Management Solution

- **2017**
    1. Best Overall Education Solution
    2. Best Student Assessment Solution
    3. Best Corporate/Workforce Learning Solution
    4. Best Higher Education LMS or Learning Platform

- **2018**
    1. Best Higher Education LMS or Learning Platform

2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**
  1. Best Virtual Learning Solution
  2. Best Content Authoring Development or Curation Solution
  3. Best Higher Education Learning Management Solution (LMS)

- **2020**
  1. Best College and Career Readiness Solution
  2. Best Cross-Curricular Solution
  3. Best Virtual Learning Solution

## 11. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

## Syllabus

### Chapter 1: Introduction to JavaScript

- Introduction to Scripting
- JavaScript Characteristics
- JavaScript and Common Programming Concepts

- JavaScript Flavors and Versions
- Technologies based on JavaScript
- Server-Side vs. Client-Side Applications
- Annotating Your Code with Comments
- Expanding the Role of JavaScript
- Lesson Summary

## Chapter 2: Working with Variables and Data in JavaScript

- Using JavaScript to Communicate with the User
- Using Data More Than Once: Variables
- JavaScript Operators
- JavaScript Expressions
- JavaScript Alerts and Prompts
- Inline Scripting, Simple User Events and Basic Event Handlers
- JavaScript Keywords and Reserved Words
- Lesson Summary

## Chapter 3: Functions, Methods and Events in JavaScript

- Introduction to Functions
- Defining a Function
- Calling a Function
- Methods as Functions
- Types of Functions
- User Events and JavaScript Event Handlers
- Lesson Summary

## Chapter 4: Debugging and Troubleshooting JavaScript

- What Is Debugging?
- Tools for Debugging Code
- Testing Code in Various Browsers
- Debugging Logic Errors
- JavaScript and Mobile Devices
- Lesson Summary

## Chapter 5: Controlling Program Flow in JavaScript

- Controlling Decisional Program Flow
- The if...else Statement

- The while Statement
- The for Statement
- The break Statement
- The continue Statement
- The switch Statement
- Lesson Summary

## Chapter 6: The JavaScript Document Object Model (DOM)

- The JavaScript Document Object Model (DOM)
- The window Object
- The document Object
- The image Object
- The history Object
- The location Object
- The navigator Object
- The Virtual DOM
- Lesson Summary

## Chapter 7: JavaScript Language Objects

- Introduction to JavaScript Language Objects
- The String Object
- Evaluating Strings
- JavaScript Regular Expressions
- The Array Object
- The forEach() method
- The Map() Method
- The Date Object
- Setting and Extracting Time Information
- The Math Object
- Lesson Summary

## Chapter 8: Custom JavaScript Objects

- Creating Custom Objects
- Creating a JavaScript Object: The Constructor
- Creating an Instance of a Custom Object
- Creating Object Methods
- Creating Functions for Your Objects

- Concept of Classes
- Iterators and Generators
- Lesson Summary

## Chapter 9: Changing HTML on the Fly

- Changing HTML on the Fly
- Using the getElementById Method
- Using the getElementsByName Method
- Using the getElementsByTagName Method
- Using the getElementsByClassName Method
- Modifying Attributes within the DOM
- Appending Text to the DOM
- Lesson Summary

## Chapter 10: Developing Interactive Forms with JavaScript

- Interactive Forms
- Overview of Form Elements
- Referring to Form Elements

- The form Object
- The input Elements and text Objects
- The textarea object
- The select Object
- Form Validation
- Common form Security Errors
- Lesson Summary

## Chapter 11: JavaScript Security

- Introduction to JavaScript Security Issues
- Browser vs. Operating System
- Browser-Specific Security Issues
- Browser Compatibility and Client-Side Detection
- Script Blocking
- Differences in document.write Among Browsers
- Malicious and Accidental Coding
- Frame-to-Frame URL Changing
- Signed Scripts

- Cross-Site Scripting (XSS)
- Cookies and Security in JavaScript
- Ethics in Collecting, Storing, Using and Protecting User Data
- Creating Secure JavaScript Code
- Lesson Summary

## Chapter 12: JavaScript Libraries and Frameworks

- Introduction to JavaScript Libraries and Frameworks
- Choosing a Code Library
- External and Pre-Made Scripts
- Loading Your First Library
- Using JavaScript Library Plug-ins
- Using Frameworks
- Best Practices with JavaScript Libraries and Frameworks
- Copyright Issues and JavaScript
- Lesson Summary

## Chapter 13: JavaScript and AJAX

- Introduction to AJAX

- Handling Data and Content Types
- Interactions Among JavaScript, Data, and HTML
- Using AJAX Scripts
- AJAX and Servers
- AJAX and Databases
- Usability Issues with AJAX
- Combining AJAX with Libraries
- Lesson Summary

### Chapter 14: Introduction to Web APIs

- Web Application Programming Interface (API)
- The Web Storage API
- The Geolocation API
- The Canvas API
- Lesson Summary

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

| 24 | 01:47 |
|---|---|
| VIDEOS | HOURS |

## 12. Practice Test

### Here's what you get

| 55 | 3 | 80 |
|---|---|---|
| PRE-ASSESSMENTS QUESTIONS | FULL LENGTH TESTS | POST-ASSESSMENTS QUESTIONS |

### Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

#### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 13. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

### Lab Tasks

- Using the concat() method

### Here's what you get

## 14. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies

- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

## Lab Tasks

**Introduction to JavaScript**

- Understanding Basic Concepts of JavaScript (JS)

**Working with Variables and Data in JavaScript**

- Working with data types
- Using arithmetic operators - Part 1
- Using arithmetic operators - Part 2
- Using comparison and logical operators
- Using the confirm() method
- Using the prompt() method
- Using the onLoad event handler and inline scripting

**Functions, Methods and Events in JavaScript**

- Working with Functions
- Understanding anonymous functions

**Controlling Program Flow in JavaScript**

- Using the if-else statement
- Using the ternary if-else statement
- Understanding the while Loop
- Understanding the do-while loop
- Using the for loop

- Using the forEach statement
- Understanding the break statement
- Understanding the continue statement
- Using the switch statement - Part 1
- Using the switch statement - Part 2
- Replacing the if-else block with the switch statement

**The JavaScript Document Object Model (DOM)**

- Understanding the window object
- Understanding the document object
- Accessing images in a document
- Understanding the location object properties
- Displaying information about a browser

**JavaScript Language Objects**

- Formatting strings
- Consider the following:var beforeExam = "You should get plenty of sleep the night before you...
- Evaluating strings
- Working with arrays - Part 1
- Creating a regular expression - Part 1
- Creating a regular expression - Part 2
- Working with arrays - Part 2
- Using the sort() method
- Using the map() function - Part 1
- Using the map() function - Part 2
- Using the Date object - Part 1
- Using the Date object - Part 2
- Using mathematical functions

**Custom JavaScript Objects**

- Creating constructor functions
- Creating Objects

- Creating classes
- Using the call() method
- Using the apply() method

**Changing HTML on the Fly**

- Accessing HTML elements using their id
- Accessing HTML elements using their name
- Accessing HTML elements by their tag names
- Accessing HTML elements using their class name
- Modifying attributes of HTML elements
- Creating the <button> elements
- Modifying DOM elements

**Developing Interactive Forms with JavaScript**

- Modifying form properties
- Modifying form elements
- Modifying select lists
- Conducting form validation - Part 1
- Conducting form validation - Part 2
- Conducting form validation - Part 3

**JavaScript Security**

- Creating a cookie

**JavaScript Libraries and Frameworks**

- Calling external scripts

**JavaScript and AJAX**

- Sending an AJAX request

**Introduction to Web APIs**

- Storing data temporarily in a browser - Part 2
- Storing data persistently in a browser - Part 1
- Drawing graphics in a page
- Debugging - Part 1
- Debugging - Part 2

## Here's what you get

**65**

**LIVE LABS**

## 15. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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