

Training: CIW  
JavaScript Specialist



| FORM OF TRAINING | MATERIALS         | PRICE   | DURATION |
|------------------|-------------------|---------|----------|
| Traditional      | Digital materials | 530 EUR | 2 days   |
| Traditional      | CTAB Tablet       | 680 EUR | 2 days   |

## LOCATIONS

Krakow - 5 Tatarska Street, II floor, hours: 9:00 am - 4:00 pm

Warsaw - 17 Bielska Street, hours: 9:00 am - 4:00 pm

## TRAINING TERMS

2019-10-07 | 2 days | Warszawa

2019-10-28 | 2 days | Warszawa

## TRAINING GOALS:

The **JavaScript Specialist** course focuses on the fundamental concepts of the **JavaScript** language. This course will empower you with the skills to design client-side, platform-independent solutions that greatly increase the value of your Web site by providing interactivity and interest. You will learn how to use **JavaScript** to communicate with users, modify the **Document Object Model (DOM)**, control program flow, validate forms, animate images, create cookies, change HTML on the fly, and communicate with databases.

The first part of this course focuses on essential JavaScript principles and techniques, including common programming practices, working with variables and data, and using functions, methods and events.

Next, you will learn intermediate **JavaScript programming** techniques that will build upon your knowledge and present solutions for more functional and exciting Web pages. These include using control structures for program flow, manipulating the JavaScript DOM, using language objects, creating expressions, and creating and using custom objects.

You will then apply **JavaScript programming** techniques to develop interactive forms, change HTML dynamically, create and use cookies, and explore security issues related to JavaScript. You will also learn about extensions to the JavaScript language, including JavaScript code libraries, Web APIs and advanced interactive **Web applications with AJAX**. Finally, you will learn throughout the course about tools and techniques for debugging and troubleshooting your JavaScript code.

By the end of this course, you will understand and use the most popular applications of JavaScript.

Target Audience

The CIW **JavaScript Specialist** course is for individuals who want to understand how to fully use the features of the **JavaScript programming** language in **Web application development**. These specialized Web language skills can help you begin or grow a career in advanced Web development and technologies:

- Web developers
- Software developers
- Application programmers
- Full-stack developers
- Web Designers
- UI/UX Designers

### Job Responsibilities

Implement and maintain hypertext-based Web sites using authoring and scripting languages; create Web content; use Web management tools and digital media tools; and apply human-factor principles to design.

### CONSPECT:

- 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
- 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
- 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
- Debugging and Troubleshooting JavaScript
  - What Is Debugging?
  - Tools for Debugging Code
  - Testing Code in Various Browsers
  - Debugging Logic Errors
  - JavaScript and Mobile Devices
- Controlling Program Flow in JavaScript
  - Controlling Decisional Program Flow
  - The if...else Statement
  - The while Statement
  - The do...while Statement
  - The for Statement
  - The break Statement
  - The continue Statement
  - The switch Statement
- 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
- 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
- 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
  - Call, apply and bind
- 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
- 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
- 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
- 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
- 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
- Introduction to Web APIs
  - Web Application Programming Interface (API)
  - The Web Storage API
  - The Geolocation API
  - The Canvas API

## REQUIREMENTS:

No prior knowledge of the **JavaScript programming** language is necessary. However, students should be familiar with using the Internet, developing Web pages and configuring networks to a level consistent with that found in the **CIW Web Foundations** series. Knowledge of HTML code development is required.

## Training recommend:

- [CIW: Site Development Associate](#)
- [CIW: Internet Business Associate](#)
- [CIW: Network Technology Associate](#)

## Difficulty level



## CERTIFICATE:

The participants will obtain certificates signed by CIW. The **JavaScript Specialist** course prepares candidates to take the **JavaScript Specialist exam**, which, if passed, earns the individual the **CIW JavaScript Specialist certification**.

## TRAINER:

CIW Certified Instructor