



# Internationale certificering ID0-735

Mocht je graag het 1D0-735 JavaScript Specialist examen willen doen na afronding van deze module, dan vind je hieronder in een oogopslag welke objectives van het CIW onze indicatoren afdekken.

## **Indicator 1.1. Met de basiskennis van Javascript code schrijven met gebruik variabelen, gegevens, functies, methoden en events.**

- List key JavaScript characteristics, including object-based nature, events, platformindependence and differences between scripting languages and programming languages.
- Identify common programming concepts, including objects, properties and methods.
- Describe various JavaScript versions and flavors, including ECMA standards, JScript and similarities with proprietary scripting languages.
- Distinguish between server-side and client-side JavaScript applications, including JavaScript interpreters and rendering engines.
- Describe acceptable coding practices, including appropriate use of comment tags and the tag.
- Examine the evolution of the role of JavaScript in simple web page design, such as gaming, virtual reality (VR), native development, mobile device scripting and backend development.
- Use attributes and methods to communicate with users, including the type attribute.
- Define variables, data types and scope.
- List keywords and reserved words.
- Store user input in variables and evaluate for appropriate responses using the console and built-in methods such as alert() and prompt().
- Distinguish between concatenation and addition.
- Use Apply operators, including string concatenation ( += ), strict comparison ( === , !== ), mathematical precedence and bitwise operators.
- Demonstrate how to use expressions.
- Implement simple event handlers, including keyboard, mouse and mobile (gestures or touch) events.
- Define and use methods as functions.
- Demonstrate the use of various types of functions and function elements including prototype functions, anonymous functions, closure functions, arguments and the use of return values.
- Distinguish between global and local variables.
- Use the conditional operator.
- Identify user events and event handlers.
- Demonstrate the use of function specific methods including calling, binding and applying.
- Use built-in functions and cast variables.

**Indicator 1.2. JavaScript-programmeertechnieken zoals statements, objecten en reguliere expressies, Document Object Model en debugging toepassen in een eenvoudige applicatie.**

- Demonstrate common steps for debugging JavaScript code, including reviewing code and testing code in different browsers and various devices.
- Demonstrate how to use various native and supplemental debugging tools, including enabling/disabling display.
- Use the if... statement.
- Use the while... statement.
- Use the do...while statement.
- Use the for... statement.
- Use the foreach statement.
- Use the break and continue statements.
- Use the switch... statement.
- Use JavaScript to manipulate the Document Object Model (DOM).
- Use the window object of the DOM.
- Manipulate properties and methods of the document object within the DOM.
- Use the image object of the DOM, including image rollover creation.
- Use the history object of the DOM.
- Evaluate and change URL information with the location object of the DOM.
- Use the navigator object of the DOM.
- Describe virtual DOM.
- Use the string object to test user input.
- Evaluate strings, including use of the length property, and use of the indexOf(), lastIndexOf(), substring() and charAt() methods.
- Implement basic regular expressions and the RegExp object.
- Use the Array object to create more efficient code.
- Use the map() method. 2.4.6: Apply the Date and Math objects.
- Create a custom JavaScript object.
- Define properties and methods of custom objects.
- Create new object instances.
- Create client-side arrays using custom objects.
- Create functions and methods for manipulating client-side arrays.
- Use the prototype property, concept of classes, constructors, iterators and generators.

**Indicator 1.3. Een applicatie in JavaScript schrijven met toepassing van interactieve formulieren, X/HTML en beveiligingsprincipes.**

- Identify steps and methods for changing HTML "on the fly," including the getElementById, getElementsByName, getElementsByTagName and getElementsByClassName methods of the DOM.
- Modify attributes in HTML using DOM elements.
- Modify form object values.
- Identify and use form controls, including HTML5 form elements.
- Define the form object.

- Refer to form objects, including input, text, textarea, radio, checkbox, select, button, password, hidden, file and submit.
- Use form objects, including radio, select, button, text, input, textarea, checkbox, password, hidden, file and submit
- Conduct form validation.
- Identify common form security issues.
- Distinguish between the browser and the operating system in relation to the elements responsible for security.
- Discuss browser security issues relevant to JavaScript, including script blocking, frame-to-frame URL changing, and document.write behavior differences among browsers.
- Define signed scripts.
- Perform client-side browser detection and determine browser compatibility.
- Identify common issues and procedures for creating secure JavaScript code.
- Define cross-site scripting and the associated security risks.
- Define the functions and common uses of cookies.
- Manipulate cookies effectively, including testing for presence of cookies, clearing cookies, enabling/disabling cookies in the browser, and deleting cookies from your hard drive.
- Discuss ethics in collecting, storing, using and protecting user data.

**Indicator 1.4. Een applicatie in JavaScript schrijven met gebruik van JavaScript-bibliotheken, WebAPI's en AJAX.**

- Identify and evaluate the benefits and drawbacks of using predefined libraries and frameworks, such as jQuery, Spry, Dojo, React.js, Angular.js and Prototype.
- Identify steps for using libraries (such as jQuery), frameworks and available plug-ins, including, optimization for faster JavaScript manipulation.
- Identify steps for loading and referencing external scripts and pre-made external scripts.
- Identify and evaluate the benefits and drawbacks of Server-side JavaScript technologies.
- Optimize page load time and user experience on various devices.
- Define synchronous and asynchronous, fundamental AJAX elements, and procedures.
- Explain the Fetch API, Promises and callback functions.
- Use the XMLHttpRequest object to retrieve data.
- Describe typical AJAX-based requests. 4.2.5: Identify key server response issues related to AJAX-based requests.
- Use JavaScript to communicate with databases.
- Identify and compare XML and JSON.
- Define Web API (Application Programming Interface) and benefits.
- Identify and use Web APIs, including session storage, local storage, and GEO location.
- Identify and use the Canvas API.