

# HTML5, CSS3 and Responsive JS Advanced Training

4 days (28 hours)

## Presentation

Today, digital transformation is a central element of our society. At the heart of this revolutionary change, knowledge of web development can have a considerable impact on the development of your business.

These skills will enable you to reduce your development costs, which can represent a [substantial budget](#).

The aim is to introduce these three key web languages: HTML for building web pages, CSS for formatting elements and JavaScript for adding dynamic content.

Our HTML, CSS and JS training course gives you all the keys you need to set up dynamic, responsive websites using best coding practices.

Our training will teach you the latest versions of these languages, namely : [HTML5](#), [CSS3](#) and [JavaScript 13](#).

## Objectives

- Creating HTML5 pages and using the new semantic tags
- Create browser-compatible pages
- Using multimedia and graphic tags
- Using the new JavaScript APIs
- Managing mobility
- Mastering formatting and page layout
- Set up an adaptive and responsive display
- How to animate HTML elements

## Target audience

- Developers
- Architects
- Web Designers
- Project managers

## Prerequisites

Basic knowledge of web programming.

## HTML5, CSS3 and Javascript training program

### Introduction

- HTML and CSS developments over the last 20 years
- The standardization process: W3C and WHATWG
- The benefits of HTML5, CSS3 and JavaScript

### The fundamentals

- HTML syntax
- The new DOCTYPE
- Character encoding
- Browser support
- Create a reusable basic skeleton for all projects

### HTML5: Structuring a document

- Evolution of tag nesting: inline and block notions disappear
- New tags: header, footer, structure, aside, nav, hgroup, etc.
- Obsolete tags: center, font, frame, acronym, etc.
- Structuring a page with the new tags

### The forms

- New form fields and their structure
- New CSS pseudo-classes (valid, invalid, checked...)
- Create a standard contact form
- Accessibility of HTML elements (ARIA)

### Multimedia

- The video tag
- Containers (MP4, OGG, WEBM) and codecs
- The audio tag
- The Shadow Dom
- Object, embed and svg tags
- Include a video in a page and create a custom control interface

## Graphics and drawing

- The canvas tag
- SVG and its filters
- WebGL
- Create a chart

## JavaScript API

- DOM extension: getElementByClassName, querySelector, contentEditable
- WebWorkers
- Drag n' Drop
- File and history management
- Asynchronous two-way communication (WebSocket)
- Data storage (client side)
- Web Storage (sessionStorage and localStorage) and IndexedDB
- Geolocation
- Device API and Web API
- Create a list of items that work offline

## Mobility with HTML5

- Permanent storage and session storage
- Using a database in HTML 5
- Maps (OpenStreetMap and Leaflet)
- Using localization in HTML 5
- Using multitouch

## CSS3: Introduction & Selector

- Prefixes
- Cascade and compatibility
- Reminder on selectors
- The new CSS3 selectors
- New CSS3 pseudo-classes (last-child, nth-child, nth-of-type, not...)

## Formatting

- calc() function and box-sizing property

- Tabular and multi-column formatting
- The flexible box model
- CSS layout templates
- CSS grid layout
- Formatting a showcase site template

## Responsive Web Design

- Responsive Web Design best practices
- The viewport
- Creating an adaptive page
- Adaptability of pages and web applications
- Frameworks and libraries: Less, Modernizr, Vuejs, Svelte...
- Adaptability of content and container

## Cladding

- Colors and fonts
- Rounded corners, Drop shadows, Color gradation
- Borders in pictures
- Multiple funds
- 2D and 3D transformations
- Content generation
- Tooltips

## Animation

- Transitions
- Entertainment
- Animated navigation menu

## Bonus

- Introducing Bootstrap, the framework from Twitter

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning on entry to training complies with Qualiopi quality criteria. As soon as enrolment is confirmed, the learner receives a self-assessment questionnaire enabling us to

assess their estimated level of proficiency in different types of technology, and their expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or internal security difficulties within the company (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.