

# Programming in HTML5 with JavaScript and CSS3, On Demand 20480

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Seminar	Zurzeit keine Termine	Teilnahmebescheinigung
E-Learning	40 Unterrichtseinheiten	

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Seminarnummer: 29414 | Herstellernummer: OD20480

Stand: 08.04.2026. Alle aktuellen Informationen finden Sie unter <https://akademie.tuv.com/s/29414>

This course provides an introduction to HTML5, CSS3, and JavaScript. This course helps students gain basic HTML5/CSS3/JavaScript programming skills. This course is an entry point into both the Web application and Windows Store apps training paths.

Details zu MOC On Demand Trainings finden Sie unter den Hinweisen weiter unten.

## Nutzen

In der MOD Version sind original MOC Unterlagen in digitaler Form enthalten.

After completing this course, students will be able to:

- Explain how to use Visual Studio 2012 to create and run a Web application.
- Describe the new features of HTML5, and create and style HTML5 pages.
- Add interactivity to an HTML5 page by using JavaScript.
- Create HTML5 forms by using different input types, and validate user input by using HTML5 attributes and JavaScript code.
- Send and receive data to and from a remote data source by using XMLHttpRequest objects and jQuery AJAX operations.
- Style HTML5 pages by using CSS3.
- Create well-structured and easily-maintainable JavaScript code.
- Use common HTML5 APIs in interactive Web applications.
- Create Web applications that support offline operations.
- Create HTML5 Web pages that can adapt to different devices and form factors.
- Add advanced graphics to an HTML5 page by using Canvas elements, and by using and Scalable Vector Graphics.
- Enhance the user experience by adding animations to an HTML5 page.

- Use Web Sockets to send and receive data between a Web application and a server.
- Improve the responsiveness of a Web application that performs long-running operations by using Web Worker processes.

## Zielgruppe

This course is intended for professional developers who have 6-12 months of programming experience and who are interested in developing applications using HTML5 with JavaScript and CSS3 (either Windows Store apps for Windows 8 or web applications). This course is intended for students who have the following experience:

1 to 3 months experience creating Web applications, including writing simple JavaScript code  
 1 month experience creating Windows client applications  
 1 month of experience using Visual Studio 2010 or 2012  
 This course is not intended for developers with three or more months of HTML5 coding experience.

Students choosing to attend this course without a developer background should pay special attention to the training prerequisites. Developers who have more than 5 years programming experience may find that portions of this training are fundamental in nature when presenting the syntax associated with certain programming tasks.

## Voraussetzungen

Before attending this course, students must have at least three months of professional development experience. In addition to their professional experience, students who attend this training should have a combination of practical and conceptual knowledge related to HTML5 programming.

This includes the following prerequisites:

- Understand the basic HTML document structure:
  - How to use HTML tags to display text content.
  - How to use HTML tags to display graphics.
  - How to use HTML APIs.
- Understand how to style common HTML elements using CSS, including:
  - How to separate presentation from content
  - How to manage content flow.
  - How to control the position of individual elements.
  - How to implement basic CSS styling.
- Understand how to write JavaScript code to add functionality to a web page:
  - How to create and use variables
  - How to use:
    - arithmetic operators to perform arithmetic calculations involving one or more variables
    - relational operators to test the relationship between two variables or expressions

- logical operators to combine expressions that contain relational operators
- How to control the program flow by using if else statements.
- How to implement iterations by using loops.
- How to write simple functions.

## Inhalte des Seminars

### Module 1:

Overview of HTML and CSSThis module provides an overview of HTML and CSS, and describes how to use Visual Studio 2012 to build a Web application.

#### Lessons

- Overview of HTML
- Overview of CSS
- Creating a Web Application by Using Visual Studio 2012

Lab : Exploring the Contoso Conference Application

### Module 2:

Creating and Styling HTML5 PagesThis module describes the new features of HTML5, and explains how to create and style HTML5 pages.

#### Lessons

- Creating an HTML5 Page
- Styling an HTML5 Page

Lab : Creating and Styling HTML5 Pages

### Module 3:

Introduction to JavaScriptThis module provides an introduction to the JavaScript language, and shows how to use JavaScript to add interactivity to HTML5 pages.

#### Lessons

- Overview of JavaScript Syntax
- Programming the HTML DOM with JavaScript
- Introduction to jQuery

Lab : Displaying Data and Handling Events by Using JavaScript

### Module 4:

Creating Forms to Collect Data and Validate User InputThis module describes the new input types available with HTML5, and explains how to create forms to collect and validate user input by using the new HTML5 attributes and JavaScript code.

## Lessons

- Overview of Forms and Input Types
- Validating User Input by Using HTML5 Attributes
- Validating User Input by Using JavaScript

Lab : Creating a Form and Validating User Input

## Module 5:

Communicating with a Remote Data Source This module describes how to send and receive data to and from a remote data source by using an XMLHttpRequest object and by performing jQuery AJAX operations.

## Lessons

- Sending and Receiving Data by Using XMLHttpRequest
- Sending and Receiving Data by Using jQuery AJAX operations

Lab : Communicating with a Remote Data Source

## Module 6:

Styling HTML5 by Using CSS3 This module describes how to style HTML5 pages and elements by using the new features available in CSS3.

## Lessons

- Styling Text
- Styling Block Elements
- CSS3 Selectors
- Enhancing Graphical Effects by Using CSS3

Lab : Styling Text and Block Elements using CSS3

## Module 7:

Creating Objects and Methods by Using JavaScript This module explains how to write well-structured and easily-maintainable JavaScript code, and how to apply object-oriented principles to JavaScript code in a Web application

## Lessons

- Writing Well-Structured JavaScript
- Creating Custom Objects
- Extending Objects

Lab : Refining Code for Maintainability and Extensibility

## Module 8:

Creating Interactive Pages using HTML5 APIs This module describes how to use some common HTML5

APIs to add interactive features to a Web application. This module also explains how to debug and profile a Web application.

Lessons

- Interacting with Files
- Incorporating Multimedia
- Reacting to Browser Location and Context
- Debugging and Profiling a Web Application

Lab : Creating Interactive Pages by Using HTML5 APIs

Module 9:

**Adding Offline Support to Web Applications** This module describes how to add offline support to a Web application, to enable the application to continue functioning in a user's browser even if the browser is disconnected from the network.

Lessons

- Reading and Writing Data Locally
- Adding Offline Support by Using the Application Cache

Lab : Adding Offline Support to a Web Application

**Module 10: Implementing an Adaptive User Interface** This module describes how to create HTML5 pages that can dynamically detect and adapt to different devices and form fact

## Wichtige Hinweise

MOC On Demand Trainings sind original Microsoft Trainings, in denen Sie zeit- und ortsungebunden lernen können. Diese Trainings enthalten:

- Zugang zum offiziellen Microsoft Video on Demand Kurs für 90 Tage ab dem ersten Zugriff.
- Einen Lab-Online-Zugang für praktische Übungen, der ab Kauf 6 Monate gültig ist.
- Eine originale MOC Schulungsunterlage in digitaler Form, wie sie auch in den Live-Trainings eingesetzt wird.

Weitere Details entnehmen Sie unserer MOC On Demand Landingpage unter [www.tuv.com/Microsoft](http://www.tuv.com/Microsoft)

## Terminübersicht und Buchung

Buchen Sie Ihren Wunschtermin jetzt direkt online unter <https://akademie.tuv.com/s/29414> und profitieren Sie von diesen Vorteilen:

- Schneller Buchungsvorgang
- Persönliches Kundenkonto
- Gleichzeitige Buchung für mehrere Teilnehmer:innen

Alternativ können Sie das Bestellformular verwenden, um via Fax oder E-Mail zu bestellen.

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