

# Programming Client Scripts with JavaScript

Course code: INTJS

The course is intended for everyone who wants to learn the basics of the JavaScript scripting language and use it to access the document object model (Document Object Model) and thus create dynamic pages and effects. You will learn to capture events, create your own objects and try out many practical examples yourself. From the basic constructions of the JavaScript language, we will reach more advanced topics such as anonymous functions, namespaces, closures or the basics of creating objects in JavaScript.

## What we will teach you

- Basics of JavaScript
- JavaScript Object Model
- Document Object Model (Images, Timer, Window)
- Create interactive forms and use validation
- Fundamentals of JavaScript as a functional language (Closure)
- Basics of object programming
- Work with DOM events

## Required entry skills

- Basic knowledge of HTML and CSS is assumed
- Basic knowledge of programming in any language or course level experience [PRG] is assumed

## Teaching methods

- Expert interpretation with practical examples, exercises on computers.

## Studying materials

- Online presentation of discussed material and exercises.

## Course outline

Introduction to JavaScript

- Scripting on web sites
- Features of the JavaScript language
- Embedding JavaScript in HTML

Basics of JavaScript

- Using variables
- Expressions
- Types of Operators
- Function declarations
- Using parameters and return values
- Terms and cycles

JavaScript Object Model

- A String object
- An Array object
- Mathematical functions
- Working with dates

Document Object Model (DOM)

- Use of objects
- A Window object
- Document object
- An Image object
- Navigator object

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## Creating interactive forms

- Form elements
- Submit form data
- Access to form elements
- Form data validation

## JavaScript as a functional language

- Functions as an object
- Function overloading
- Function arguments
- Self-Invoked function
- Closures

## Object programming

- Object initializer
- Design function
- Prototype

## Events

- Classic approach
- Standard access
- Canceling the default event
- Event bubbling

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