

# SUPPLEMENT

Crash Course "JS Fundamental"

**Number of Hours** 150

**Number of ECTS Credits** 5

## LEARNING CONTENT:

- ES5 syntax
- Browser console, interaction with the user
- Variables, data types, operations with variables, data type conversion
- Arrays
- Programming paradigms
- Conditional constructions, cycles
- Functions
- Scope of variables
- Functional expressions
- Function as parameter
- Closures
- Self-executing function
- Recursive functions
- Overriding functions
- Hoisting
- Object-oriented programming
- UML, class diagram
- Objects
- Strict mode, keyword this
- Objects in functions, Constructors of objects
- Function as object, context binding
- Prototypes, types of objects on prototypes
- Encapsulation, prototype imitation, polymorphism
- Modules, exceptions
- Asynchronous programming
- Built-in object types
- Features of ES6, variables, destructuring, functions, strings
- Objects, classes, methods, getters, setters
- Promise

# LEARNING OUTCOMES:

- Be able to use common code editors to create a web page taking into account the capabilities of HTML5;
- Be able to create scripts for manipulating page elements using JavaScript, using ES5 and ES6 standards;
- Know the features of using all types of data and basic JavaScript constructs;
- Be able to apply the object-oriented approach when creating applications;
- Understand how asynchronous processes occur in the browser;
- Be able to implement functions that simulate asynchronous processes using callback, Promise and async-await syntax;
- Be able to present your project and do code-review of other projects.

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Oct 10, 2022 – Dec 09, 2022