Course : JavaScript, advanced programming

Practical course - 3d - 21h00 - Ref. LMP
Price : 1830 € E.T.

NEW

The aim of this course is to provide a comprehensive overview of modern web application development, focusing on the JavaScript language, which has become an essential building block in the creation of next-generation applications. The course also covers topics relating to the development environment and provides answers on good design practices. This training program is aimed at employees in professional branches covered by the OPCO Atlas.

Teaching objectives

At the end of the training, the participant will be able to:

- Discover the latest developments in JavaScript
- Handling advanced JavaScript functions (code, object model, modules, iterations, etc.)
- Mastering modern syntax
- Securing your site
- Choose the version best suited to your needs

Intended audience

For OPCO Atlas members: web developers, web architects, project managers, webmasters.

Prerequisites

Working knowledge of JavaScript, HTML and CSS. Basic knowledge of XML.

Practical details

Hands-on work

Discussions, practical work.

Teaching methods

To optimize the learning experience, e-learning modules can be provided before and after the classroom session or virtual class, at the participant's request.

Course schedule

PARTICIPANTS

For OPCO Atlas members: web developers, web architects, project managers, webmasters.

PREREQUISITES

Working knowledge of JavaScript, HTML and CSS. Basic knowledge of XML.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 JavaScript - Learn the basics - Pre-training digital learning content

- Introduction.
- Basic language.
- Script execution.
- JavaScript objects and callbacks.
- DOM manipulation.

Digital activities

This online training course teaches or reviews the essential basics of JavaScript, such as functions, conditions and loops, so you can develop your first applications independently. Participants will put their knowledge into practice by creating a task management application (ToDoList), and will be ready to tackle frameworks such as AngularJS or Node.js.

2 JavaScript, the must-have language

- Variables, logical operators, instructions, functions, keywords...
- Internal objects.
- DOM (Document Object Model).
- Event management.
- Object programming in JavaScript.
- Many changes since ES5.1.
- Web workers: background processing.

Hands-on work

Definition puzzle.

3 Tools and development environment

- What IDE (integrated development environment)?
- Debug and test HTML5 applications.
- Package a web application.

Hands-on work

Configure your development environment.

4 Communication API

- Details of the http protocol.
- Fetch API.
- JSON and XML.
- Server-Sent Events.
- WebSocket API.
- Asynchronous programming with promises.

Hands-on work

Query a back-end server made available to learners.

5 Client-side storage

- Web Storage.
- IndexedDB and Web SQL Database.
- Create offline applications.
- Service workers (PWA).

Hands-on work

Enrich the fil rouge project by storing long-term information locally.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.

• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.

• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

6 Industrializing JavaScript projects

- Modules.
- Ensure proper support for different browsers.
- Accessibility.
- Minification.
- Bundler modules.
- Test framework.

Hands-on work
Setting up an industrialization chain for the "fil rouge" project.

7 Architecture and design

- Architecture and design.
- Security, cross domain scripting.
- CORS and CSP (Content Security Policy).
- Protect against XSRF (Cross-Site Request Forgery) attacks.
- Best practices.
- Optimize and protect your code.

Hands-on work
Transcription of a business problem into an object model.

8 TypeScript - Getting to grips with the language for web application development - Post-training digital learning content

- Introduction.
- Installation.
- Language basics.
- Object-oriented programming.
- Modules and definition file.

Digital activities
This online training course introduces the TypeScript language and teaches how to use it to develop more robust and secure web applications. After an introduction to its evolution and environment (Visual Studio Code, Node.js, CLI), participants will study the basics of the language, object-oriented programming and the module system. At the end of the course, they will be ready to use TypeScript with frameworks such as Angular, React, Vue or Node.js.

Dates and locations

REMOTE CLASS
2026 : 16 June, 29 Sep., 8 Dec.

LILLE
2026 : 16 June, 29 Sep., 8 Dec.

PARIS LA DÉFENSE
2026 : 9 June, 22 Sep., 1 Dec.