

# Course : Go, Google's programming language

*Practical course - 3d - 21h00 - Ref. GOG*

**Price : 1650 € E.T.**

★★★★☆ 4,2 / 5

This intensive course will give you a thorough understanding of the Go language. Language constructs will be progressively introduced, starting with fundamental concepts. The course will introduce the main standard libraries: utilities, input/output, network.

## Teaching objectives

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

- ✓ Master language syntax
- ✓ Master specific concepts and mechanisms: error handling, interfaces, parallelism, etc.
- ✓ Understand and use the main standard libraries: io, network communication
- ✓ Using a development environment

## Intended audience

Programmers. Development-oriented project managers.

## Prerequisites

Notions of programming. Experience of object-oriented programming would be appreciated.

## Practical details

### Hands-on work

Theoretical sequences alternate with practical work.

### Teaching methods

The exercises illustrate all the elements of the language. They include an analysis/design phase, followed by a programming phase. They are carried out using a simple IDE.

## Course schedule

### PARTICIPANTS

Programmers. Development-oriented project managers.

### PREREQUISITES

Notions of programming. Experience of object-oriented programming would be appreciated.

### 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 The Go environment

- Main commands (go, gofmt, godoc).
- Unit tests and benchmarks.
- Some IDEs.

### Hands-on work

Get to grips with the development environment.

## 2 Basic language constructs

- Compilation units, packages and modules: class visibility control, import mechanism.
- Variables (different forms of declaration), primitive types.
- Control instructions: conditional, loop and branch instructions.
- Functions (multiple returns, variadic functions, anonymous functions).
- Pointers.

### Hands-on work

A series of exercises illustrating the constructions presented.

## 3 More advanced language constructs

- Tables, slices, structs and maps.
- The range iterator.
- Methods.
- Interfaces.
- Error handling (panic, recover).
- The deferred functions.
- The iota construction.

### Hands-on work

A series of exercises using the constructions presented.

## 4 Parallelism programming

- Basic concepts and corresponding instructions (threads, goroutines, channels and select).
- Parallelism vs. competition.
- Managing competition: locks and barriers.

### Hands-on work

Building a multithreaded application.

## 5 Some packages and libraries

- File system management.
- Simple input/output.
- Network communication classes.
- Reflection (concepts and associated package).

### Hands-on work

Building a small application using reflection and communication.

## 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 Supplements

- Unit testing.
- Benchmarks.

### Hands-on work

Perform a set of unit tests and performance measurements on a simple application.

## Dates and locations

### REMOTE CLASS

2026 : 27 May, 12 Oct., 16 Dec.

### PARIS LA DÉFENSE

2026 : 27 May, 12 Oct., 16 Dec.