

C++ Language – Object Oriented Programming

Course code: CPP_OOP

The course is intended for people who are switching from C to C++ or simply want to start designing and implementing objects in C++. The demonstrated techniques are strictly platform-neutral and can be used in Windows, Unix, Linux etc.

Who is the course for

The course is intended for programmers, testers and project leaders who want to learn about designing and implementing objects in C++.

What we teach you

Definition of an object in C++

Object attributes and methods

Access rights to attributes and methods

Constructors, implicit constructors, copy constructors

Destructors

Inheritance

Virtual functions, destructors

New and Delete operators

Static attributes and methods

Required skills

Skills corresponding to the C and C++ programming languages course (MSCPP1)

Course Outline

Introduction to Object Oriented Programming

- Objects and Classes
- Encapsulation of objects
- Class Inheritance
- Using polymorphism

Object oriented programming

- Class keyword
- Defining attributes
- Naming Conventions
- Defining scope
- Defining Methods
- Defining Methods overriding
- New and Delete operators
- Constructors and destructors
- Deep and shallow copy of object

Inheritance in C++

- Introducing to Inheritance in C++
- Samples of objects hierarchies
- Protected keyword
- Using constructor for parent object
- Using methods and attributes of parent object

GOPAS Praha

Na Strži 2097/63
140 00 Praha 4 - Krč
Tel.: +420 226 201 390
info@gopas.cz

GOPAS Brno

Nové sady 996/25
602 00 Brno
Tel.: +420 530 513 590
info@gopas.cz

GOPAS Bratislava

Dr. Vladimíra Clementisa 10
Bratislava, 821 02
Tel.: +421 902 903 132
info@gopas.sk



Copyright © 2026 GOPAS, a.s.,
All rights reserved

C++ Language – Object Oriented Programming

- Inheritance versus aggregation

Polymorphism in C++

- Virtual methods
- Polymorphic containers
- Virtual destructors
- Abstract classes and methods
- Static attributes and methods
- Overriding operators
- Explicit constructors
- Errors and Events

GOPAS Praha
Na Strži 2097/63
140 00 Praha 4 - Krč
Tel.: +420 226 201 390
info@gopas.cz

GOPAS Brno
Nové sady 996/25
602 00 Brno
Tel.: +420 530 513 590
info@gopas.cz

GOPAS Bratislava
Dr. Vladimíra Clementisa 10
Bratislava, 821 02
Tel.: +421 902 903 132
info@gopas.sk



Copyright © 2026 GOPAS, a.s.,
All rights reserved