

## .NET Design Pattern Programming («CPP»)

This course provides practical expert knowledge for building and designing classes and class libraries in C# using design patterns. You will learn basic principles for designing C# programs.

**Duration:** 2 days

**Price:** 1'700.–

**Course documents:** Digicomp courseware

### Content

It is difficult to translate an object-oriented analysis model into a design in such a way that the resulting system is flexible, changeable and understandable. But the design patterns from the catalogue of the «Gang of Four» (Gamma, Johnson, Helm, Vlissides) can help you. You will be sensitized to where .NET already uses design patterns. You will also learn and practice using concrete examples to apply design patterns using C#. You will be able to try out different techniques for implementing design patterns in C# and get concrete solutions for some common design problems.

1. Introduction to Patterns
2. Examples of Design Patterns
  - Observer, Singleton etc.
3. Use Cases and Implementations of important Patterns like:
  - Abstract Factory
  - Builder
  - Prototypes
  - Adapter
  - Composite
  - Flyweight
  - Iterator
  - Strategy
  - Visitor
4. Examples for using Design Patterns in .NET
5. More Pattern Catalogues
6. Refactoring with Design Pattern
7. Prospect

### Key Learnings

- Design and implement .NET applications and class libraries in such a way that they are easily customizable, extensible, understandable, and reusable to a significant extent
- Assessment of existing applications and libraries with regard to these properties and corresponding further development

### Target audience

This course is designed for .NET developers who want to take the next step in object-oriented software development and unify a collection of OO best practices for reoccurring subproblems.

## Requirements

Good knowledge of C# or Visual Basic.NET as well as good OO knowledge analogous to the courses:

- Object-oriented Analysis and Design (OOAD) («OOU»)
- .NET Framework Basics («CSA»)

## Any questions?

We are happy to advise you on +41 44 447 21 21 or [info@digicomp.ch](mailto:info@digicomp.ch). You can find detailed information about dates on [www.digicomp.ch/courses-software-engineering/programming/frameworks-libraries/course--net-design-pattern-programming](http://www.digicomp.ch/courses-software-engineering/programming/frameworks-libraries/course--net-design-pattern-programming)