



## MS20483 - Programming in C#

Microsoft - Visual Studio - Programming and Development

Durata:

**5 Days**

Lingue:

**Italiano**

Certificazione:

**MCSA Web Applications**

### Course description

This training course teaches developers the programming skills that are required for developers to create Windows applications using the Visual C# language. During their five days in the classroom students review the basics of Visual C# program structure, language syntax, and implementation details, and then consolidate their knowledge throughout the week as they build an application that incorporates several features of the .NET Framework 4.7.

### Course schedule

1. Review of C# Syntax
  - Overview of Writing Applications using C#
  - Datatypes, Operators, and Expressions
  - C# Programming Language Constructs
2. Creating Methods, Handling Exceptions, and Monitoring Applications
  - Creating and Invoking Methods
  - Creating Overloaded Methods and Using Optional and Output Parameters
  - Handling Exceptions
  - Monitoring Applications
3. Developing the Code for a Graphical Application
  - Implementing Structs and Enums
  - Organizing Data into Collections
  - Handling Events
4. Creating Classes and Implementing Type-safe Collections

#### ITCore Group

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- Creating Classes
- Defining and Implementing Interfaces
- Implementing Type-safe Collections
- 5. Creating a Class Hierarchy by Using Inheritance
  - Creating Class Hierarchies
  - Extending .NET Framework Classes
  - Creating Generic Types
- 6. Reading and Writing Local Data
  - Reading and Writing Files
  - Serializing and Deserializing Data
  - Performing I/O Using Streams
- 7. Accessing a Database
  - Creating and Using Entity Data Models
  - Querying Data by Using LINQ
  - Updating Data by Using LINQ
- 8. Accessing Remote Data
  - Accessing Data Across the Web
  - Accessing Data in the Cloud
- 9. Designing the User Interface for a Graphical Application
  - Using XAML to Design a User Interface
  - Binding Controls to Data
  - Styling a User Interface
- 10. Improving Application Performance and Responsiveness
  - Implementing Multitasking by using Tasks and Lambda Expressions
  - Performing Operations Asynchronously
  - Synchronizing Concurrent Access to Data
- 11. Integrating with Unmanaged Code
  - Creating and Using Dynamic Objects
  - Managing the Lifetime of Objects and Controlling Unmanaged Resources
- 12. Creating Reusable Types and Assemblies
  - Examining Object Metadata
  - Creating and Using Custom Attributes
  - Generating Managed Code
  - Versioning, Signing and Deploying Assemblies
- 13. Encrypting and Decrypting Data

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- Implementing Symmetric Encryption
- Implementing Asymmetric Encryption

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