

Course 460: Introduction to .NET Programming

Course Description...

This course introduces the .NET Framework and the Visual Studio .NET development environment. Emphasis is placed on procedural programming with Windows forms but briefly introduces some object-oriented concepts.

Learning Objectives...

- Understand the basic principles of the .NET framework
- Discover the basic principles of procedural programming in an event-driven object-oriented environment
- Apply the principles of procedural programming to the development of Windows form-based applications
- Show the syntactical rules of one of the .NET languages (either VB.NET or C#)

Who should attend...

Audience should be limited to individuals who are new to programming or who consider themselves to be novice programmers.

Prerequisites...

None.

See next page for a detailed course outline...



Course Outline...

Introduction and Overview

Course Objectives

Unit 1: Introduction to .NET

What is .NET?

- .NET Framework
- Microsoft Intermediate Language
- Common Language Runtime

Why is .NET?

- Safer, more secure and more stable
- Run once, run always
- XCOPY installation

Unit 2: Introduction to Visual Studio .NET

The Visual Design Process

- Draw interface
- Set design-time properties
- Write code

Tour of the Rapid Application Development (RAD) Environment

- Menus and toolbar buttons
- Windows
- Files
- Project types

Unit 3: Introduction to GUI Programming

Tour of Basic Visual Components

- Event-driven programming and the GUI
- The Main Method
- Forms
- Simple controls
- Simple debugging tools

Tour of Advanced Visual Components

- Menus
- Dialogs
- Advanced Controls

Program Distribution

- The need for the .NET Framework
- XCOPY Distribution
- Package and Deployment Wizard



Unit 4: Introduction to Programming Syntax

Statements

- Variables
- Constants
- Operators
- Debugging using
 - breakpoints
 - single-stepping
 - Immediate Window

Program Control

- Sequence
- Conditional Branching
- Conditional Looping
- Debugging using the watch list

Program Modularity

- Designing and declaring classes
- Difference between classes and structures
- Procedures and parameters and method overloading
- Variable scope
- Debugging using the call stack

Structured Exception Handling

- Standard Exceptions
- Try ... Catch ... Finally
- Propagating up the call stack

Unit 5: Putting It All Together

What Has Been Learned

- Understand the basic principles of the .NET framework
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- Show the syntactical rules of one of the .NET languages (either VB.NET or C#)

Please contact your ROI representative to discuss course tailoring!!!