



Object-Oriented Programming Principles

Overview: This course introduces you to general principles underlying the practice of object-oriented programming. The concepts and principles in this course are presented in a generic manner, and as such are intended to prepare the student for programming in virtually any object-oriented programming language. Where specific illustrations are required, they are presented through pseudo-code.

Course Length: One Day

Course Content

Lesson 1: Overview and Benefits of Object-oriented Programming

Approaches to Software Design
Evolution of the Object Model
Benefits of Object Programming

Lesson 2: The Object Model

Objects
Classes
Subclassing and Inheritance
Polymorphism

Lesson 3: From Plan to Product

Developing a Plan
Identifying Software Requirements
Designing a General Class Structure
Building a General Application Framework
Implementing Features
Final Polishing

Lesson 4: Tools and Methodologies

Analysis and Design Methodologies
Notations

Lesson 5: Object Programming in Windowed Environments

Benefits of OOP in Windowed Application Environments
Application Frameworks and Class Libraries

Lesson 6: Object Programming for the Web

How Web Applications Work
Web Objects
Building a Simple Object-oriented Program