

Introduction to Programming Using Java

Course length: 1 day

Course Description

Welcome to Introduction to Programming Using Java. This course introduces you to general programming concepts, and it can serve as the foundation course for a complete path in computer programming skills. Although the programming concepts introduced in this course apply to most programming languages, this course uses Java™ SE Development Kit 6 Update 3 as a tool for learning.

Course Objective: You will learn the basic concepts of programming using Java as the tool for learning.

Target Student: This course is intended for students with no prior academic background in a field other than computer science or programming, who wish to embark on a course of study that will prepare them for employment as professional software developers. Students who interact on a business basis with software development professionals and need to improve communication through better understanding of the concepts and terminology used by professional programmers will also benefit equally.

Prerequisites: Students should be familiar with using personal computers with a mouse and keyboard. Basic typing skills are mandatory. Students should be comfortable in the use of the Windows 2000, Windows XP, or Windows Vista environment. To ensure your success in this course, we recommend that you take the following courses or have equivalent experience: Microsoft Windows Vista Level 1 and Microsoft Windows XP Professional Level 1.

Delivery Method: Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

Performance-Based Objectives

Upon successful completion of this course, students will be able to:

- Familiarize themselves with the introductory concepts of programming.
- Create simple programs.
- Create and call methods. They will also work with in-built methods.
- Implement various methods of object-oriented programming.
- Fix programming errors.

Course Content

Lesson 1: Introduction to Programming

Topic 1A: Overview of Programming

Topic 1B: Introduction to the Software Development Life Cycle

Lesson 2: Creating Simple Programs

Topic 2A: Work with Variables

Topic 2B: Work with Operators

Topic 2C: Control Program Execution

Topic 2D: Work with Arrays

Lesson 3: Creating Programs Using Methods

Topic 3A: Work with In-Built Methods

Topic 3B: Create Methods



Lesson 4: Implementing the Object-Oriented Methodology

Topic 4A: Create a Class

Topic 4B: Create an Object

Topic 4C: Create a Constructor

Topic 4D: Create a Subclass

Lesson 5: Handling Programming Errors

Topic 5A: Fix Syntax Errors

Topic 5B: Fix Logical Errors

Topic 5C: Fix Runtime Errors

