

## Course Description

### **TECHNOLOGY: Programming I (C++)\*\***

**COURSE DESCRIPTION:** In the first part of this introductory-level course, participants learn the basics of C++ programming by completing a series of hands-on projects. Using Visual Studio.NET 2003, participants learn how to write code using variables, functions, expressions, flow control statements, loops and more. In the second part of this course, students build on the skills they learned in the first part. This part of the course introduces arrays, structs, classes and other basic concepts of programming.

**PREREQUISITES:** None

**COURSE LENGTH:** One semester

**REQUIRED MATERIAL:** Visual Studio 6.0 or 2005 Express

**IMPORTANT NOTE:** Students will be creating .exe files; if they are using school computers, they must have the rights to do this under the school's security policies.

#### **COURSE OUTLINE:**

##### **Part 1**

- Introduction to Programming
- Working with Variables
- Using Common Functions
- More on Variables
- Flow Control
- Generating Random Numbers
- Additional Projects

##### **Part 2**

- Going Further with Variables
- Working with Pointers
- Storing Data with Structured Types
- Using Classes and Constructors
- Working with Dynamic Data
- More on Functions
- Additional Projects

\*\* One-semester course