

Before You Begin

Please read the following topics before you begin the course.

This Course is for Hands-On Students!

This course was designed for 9th-12th grade students by experienced software professionals. We have created a program that will give students a solid, practical foundation in the field of computer programming. Lessons begin with basic concepts, including sample code, and move quickly to hands-on implementation. Students will enjoy writing their own programs as they progress through the course.

Each chapter includes at least one activity that will allow the student to demonstrate the concepts that they have learned. Beginning in Chapter 2, these activities will have students writing and running their very own C# programs. These activities will start small and move up in complexity as the course progresses. At the end of the course, students will have the opportunity to apply what they have learned by completing a final project: a real chess game program!

What Do Students Need to Start?

Students will need to meet the following requirements in order to successfully complete the course:

- Students should have the pre-requisite computer skills listed in the Student Textbook
- Students should have a Windows-based computer that meets the minimum hardware and software requirements listed in the Student Textbook
- Students will need an Internet connection to complete the download and installation of Visual C# 2010 Express during the first activity. An Internet connection is optional for the rest of the course.

Why Did We Choose the “Visual C#” Programming Language?

This course is taught using the Visual C# programming language. C# is an easy to learn yet powerful object-oriented language used frequently throughout academia and the software industry. Skills learned in this course will remain relevant to the student throughout their career! Microsoft provides a free, high-quality C# development environment specifically for the student or hobby programmer.

What Do Teachers Need to Do?

The course is largely a self-study curriculum where students can simply read the textbook, complete the activities, and refer to this Solution Guide to clear up any questions about the activities. Teachers may choose to have greater involvement if they wish to administer the course for a more formal grade or school credit. Some students, especially younger students, may need additional assistance.

Grading a student's progress is done in two ways. First, each chapter has a hands-on activity which should be completed by the student. These activities are the focal point of the course and we recommend assigning at least 50% of the course grade to the activities. Guidance on grading activities is given below. In addition, we provide 10-question tests for every chapter which can be used as inputs to a final grade.

Please see the chapter on "Evaluating Student Progress" for more details!

How Do I Get Help?

If you have questions or concerns about any of the activities, solutions, or tests, please contact us according to the instructions on our website. We will provide responses to your questions as soon as possible. Please also check the Errata section of our website for any reported corrections or clarifications to this edition.