

Introduction

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Instructor Notes

Presentation:
30 minutes

The Introduction module provides students with an overview of the course content, materials, and logistics for Course 2609, *Introduction to C# Programming with Microsoft® .NET*.

Required materials

To teach this course, you need the following materials:

- Delivery Guide
- Trainer Materials compact disc

Preparation tasks

To prepare for this course, you must complete the Course Preparation Checklist that is included with the trainer course materials.

How to Teach This Module

	<p>This section contains information that will help you to teach this module.</p>
Introduction	<p>Welcome students to the course and introduce yourself. Provide a brief overview of your background to establish credibility.</p> <p>Ask students to introduce themselves and provide their background, product experience, and expectations of the course.</p> <p>Record student expectations on a whiteboard or flip chart that you can reference later in class.</p>
Course materials	<p>Tell students that everything they will need for this course is provided at their desk.</p> <p>Have students write their names on both sides of the name card.</p> <p>Describe the contents of the student workbook and the Student Materials compact disc.</p> <p>Tell students where they can send comments and feedback on this course.</p> <p>Demonstrate how to open the Web page that is provided on the Student Materials compact disc by double-clicking Autorun.exe or Default.htm in the StudentCD folder on the Trainer Materials compact disc.</p>
Prerequisites	<p>Describe the prerequisites for this course. This is an opportunity for you to identify students who may not have the appropriate background or experience to attend this course.</p>
Course outline	<p>Briefly describe each module and what students will learn. Be careful not to go into too much detail because the course is introduced in detail in Module 1.</p> <p>Explain how this course will meet students' expectations by relating the information that is covered in individual modules to their expectations.</p>
Microsoft Official Curriculum	<p>Explain the Microsoft® Official Curriculum (MOC) program and present the list of additional recommended courses.</p> <p>Refer students to the Microsoft Official Curriculum Web page at http://www.microsoft.com/traincert/training/ for information about curriculum paths.</p>
Microsoft Certified Professional program	<p>Inform students about the Microsoft Certified Professional (MCP) program, any certification exams that are related to this course, and the various certification options.</p>
Facilities	<p>Explain the class hours, extended building hours for labs, parking, restroom location, meals, phones, message posting, and where smoking is or is not allowed.</p> <p>Let students know if your facility has Internet access that is available for them to use during class breaks.</p> <p>Also, make sure that the students are aware of the recycling program if one is available.</p>

Introduction

- Name
- Company affiliation
- Title/function
- Job responsibility
- Programming, networking, database experience
- Product experience
- Expectations for the course

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Introduction

Your instructor will ask you to introduce yourself and provide a brief overview of your background, addressing the bulleted items on the slide as appropriate.

Course Materials

- Name card
- Student workbook
- Student Materials compact disc
- Course evaluation

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The following materials are included with your kit:

- *Name card.* Write your name on both sides of the name card.
- *Student workbook.* The student workbook contains the material covered in class, in addition to the hands-on lab exercises.
- *Student Materials compact disc.* The Student Materials compact disc contains the Web page that provides you with links to resources pertaining to this course, including additional readings, review and lab answers, lab files, multimedia presentations, and course-related Web sites.

Note To open the Web page, insert the Student Materials compact disc into the CD-ROM drive, and then in the root directory of the compact disc, double-click **Autorun.exe** or **Default.htm**.

- *Course evaluation.* To provide feedback on the course, training facility, and instructor, you will have the opportunity to complete an online evaluation near the end of the course.

To provide additional comments or inquire about the Microsoft Certified Professional program, send e-mail to mcphelp@microsoft.com.

Prerequisites

- Familiarity with basic operating system functions
- Understanding of the basics of structured programming
- At least three months of experience developing applications

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This course requires that you meet the following prerequisites:

- Be familiar with basic operating system functions such as file manipulation.
- Understand basics of structured programming, including concepts such as flow control, variables and parameters, and function calls.
- At least three months of experience developing applications in either a graphical or non-graphical environment, or equivalent knowledge.

Course Outline

- **Module 1: Getting Started**
- **Module 2: Understanding C# Language Fundamentals**
- **Module 3: Creating Objects in C#**
- **Module 4: Implementing Object-Oriented Programming Techniques in C#**
- **Module 5: Programming with C#**
- **Module 6: Building .NET-based Applications with C#**

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Module 1, “Getting Started,” introduces the Microsoft® .NET platform and Microsoft Visual Studio® .NET, and explains how to use the programming tools in Visual Studio .NET.

Module 2, “Understanding C# Language Fundamentals,” introduces the basic syntax and structure of the C# language. It describes C# data types, describes the .NET common type system, and discusses code style guidelines.

Module 3, “Creating Objects in C#,” introduces the fundamentals of object-oriented programming, including the concepts of objects, classes, and methods.

Module 4, “Implementing Object-Oriented Programming Techniques in C#,” describes in detail the object-oriented principles of encapsulation, inheritance, and polymorphism.

Module 5, “Programming with C#,” covers data structures, exception handling, interfaces, delegates, and events. It introduces various data structures, including arrays, including the **System.Array** class, and collections. This module also covers interfaces, introduces the concepts and syntax of exception handling, and explains delegates and their use in event handling.

Module 6, “Building .NET-based Applications with C#,” introduces the .NET Framework class library, focusing on the **System.Object** class and several of the most useful derived classes. This module also examines classes in the **System.Windows.Forms** namespace and discusses the handling of events in Microsoft Windows® Forms.

Course Outline (*continued*)

- Module 7: Using ADO.NET to Access Data
- Module 8: Creating Windows-based Applications
- Module 9: Using XML Web Services in a C# Application
- Module 10: Creating a Web Application with Web Forms
- Module 11: Application Settings and Deployment
- Module 12: Exploring Future Learning

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Module 7, “Using ADO.NET to Access Data,” explains how to use the **System.Data** namespace and Microsoft ADO.NET to access data in a database. It describes how to create a Windows-based application that uses ADO.NET and then use the application to connect to a database, create a query, populate a **DataSet** object, bind data to controls, and update a database.

Module 8, “Creating Windows-based Applications,” describes how to create menus, common and custom dialog boxes, status bars, and toolbars to enhance the usability of an application.

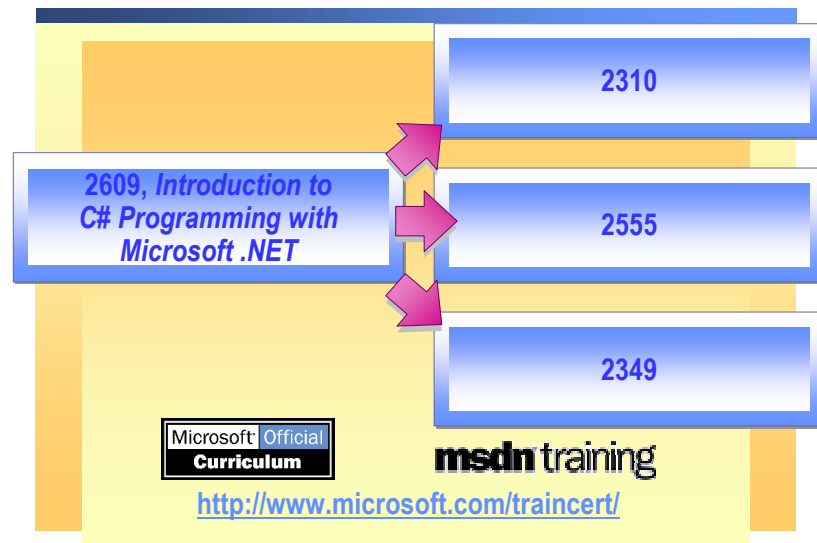
Module 9, “Using XML Web Services in a C# Application,” introduces the **System.Web.Services** namespace and the process of building and using XML Web services in a C# application.

Module 10, “Creating a Web Application with Web Forms,” introduces the **System.Web.UI** namespace and describes how to create a Web application with a Web Form. The module explains how to create a Web Form, add controls to the Web Form, and then use the Web Form to submit data and respond to events.

Module 11, “Application Settings and Deployment,” describes how to store user preferences and configure application settings. It also introduces the procedures that are involved in deploying a C# application by using Microsoft Visual Studio .NET. It explains how to deploy both Web-based applications and applications that are based on Microsoft Windows.

Module 12, “Exploring Future Learning,” provides an opportunity for students to explore some of the additional and more advanced capabilities of C#, to practice the knowledge and skills they acquired during the course, and to ask questions.

Microsoft Official Curriculum



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Introduction

Microsoft Training and Certification develops Microsoft Official Curriculum (MOC), including MSDN® Training, for computer professionals who design, develop, support, implement, or manage solutions using Microsoft products and technologies. These courses provide comprehensive skills-based training in instructor-led and online formats.

Additional recommended courses

Each course relates in some way to another course. A related course may be a prerequisite, a follow-up course in a recommended series, or a course that offers additional training.

After taking Course 2609, *Introduction to C# Programming with Microsoft .NET*, you can take the following courses in any order:

- 2310, *Developing Microsoft ASP.NET Web Applications Using Visual Studio .NET*
- 2555, *Developing Microsoft .NET Applications for Windows (Visual C#™ .NET)*
- 2349, *Programming with the Microsoft .NET Framework (Microsoft Visual C# .NET)*

Course	Title and description
2310	<i>Developing Microsoft ASP.NET Web Applications Using Visual Studio .NET</i> This course teaches the fundamentals of Web site implementation using ASP.NET and Microsoft Visual Basic® .NET with the Visual Studio .NET environment and the .NET platform.
2555	<i>Developing Microsoft .NET Applications for Windows (Visual C# .NET)</i> This course provides students with the skills required to build Windows Forms applications by using the Microsoft .NET Framework.
2349	<i>Programming with the Microsoft .NET Framework (Microsoft Visual C# .NET)</i> This course enables developers to build applications that use the .NET Framework.

Other related courses may become available in the future, so for up-to-date information about recommended courses, visit the Training and Certification Web site.

**Microsoft Training and
Certification information**

For more information, visit the Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert/>.

Microsoft Certified Professional Program



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Introduction

Microsoft Training and Certification offers a variety of certification credentials for developers and IT professionals. The Microsoft Certified Professional program is the leading certification program for validating your experience and skills, keeping you competitive in today's changing business environment.

MCP certifications

The Microsoft Certified Professional program includes the following certifications.

- **MCSA on Microsoft Windows 2000**

The Microsoft Certified Systems Administrator (MCSA) certification is designed for professionals who implement, manage, and troubleshoot existing network and system environments based on Microsoft Windows 2000 platforms, including the Windows .NET Server family. Implementation responsibilities include installing and configuring parts of the systems. Management responsibilities include administering and supporting the systems.

- **MCSE on Microsoft Windows 2000**

The Microsoft Certified Systems Engineer (MCSE) credential is the premier certification for professionals who analyze the business requirements and design and implement the infrastructure for business solutions based on the Microsoft Windows 2000 platform and Microsoft server software, including the Windows .NET Server family. Implementation responsibilities include installing, configuring, and troubleshooting network systems.

- **MCAD**

The Microsoft Certified Application Developer (MCAD) for Microsoft .NET credential is appropriate for professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services, and for those who work in teams that develop enterprise applications. The credential covers job tasks that include developing, deploying, and maintaining the solution.

- **MCSA**

The Microsoft Certified Solution Developer (MCSA) credential is the premier certification for professionals who design and develop leading-edge business solutions with Microsoft development tools, technologies, platforms, and the Microsoft Windows DNA architecture. The types of applications MCSAs can develop include desktop applications and multi-user, Web-based, N-tier, and transaction-based applications. The credential covers job tasks ranging from analyzing business requirements to maintaining solutions.

- **MCDBA on Microsoft SQL Server™ 2000**

The Microsoft Certified Database Administrator (MCDBA) credential is the premier certification for professionals who implement and administer Microsoft SQL Server databases. The certification is appropriate for individuals who derive physical database designs, develop logical data models, create physical databases, create data services by using Transact-SQL, manage and maintain databases, configure and manage security, monitor and optimize databases, and install and configure SQL Server.

- **MCP**

The Microsoft Certified Professional (MCP) credential is for individuals who have the skills to successfully implement a Microsoft product or technology as part of a business solution in an organization. Hands-on experience with the product is necessary to successfully achieve certification.

- **MCT**

Microsoft Certified Trainers (MCTs) demonstrate the instructional and technical skills that qualify them to deliver Microsoft Official Curriculum through Microsoft Certified Technical Education Centers (Microsoft CTECs).

Certification requirements

The certification requirements differ for each certification category and are specific to the products and job functions addressed by the certification. To become a Microsoft Certified Professional, you must pass rigorous certification exams that provide a valid and reliable measure of technical proficiency and expertise.

For More Information See the Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert/>.

You can also send e-mail to mcphelp@microsoft.com if you have specific certification questions.

Acquiring the skills tested by an MCP exam

Microsoft Official Curriculum (MOC) and MSDN Training can help you develop the skills that you need to do your job. They also complement the experience that you gain while working with Microsoft products and technologies. However, no one-to-one correlation exists between MOC and MSDN Training courses and MCP exams. Microsoft does not expect or intend for the courses to be the sole preparation method for passing MCP exams. Practical product knowledge and experience is also necessary to pass the MCP exams.

To help prepare for the MCP exams, use the preparation guides that are available for each exam. Each Exam Preparation Guide contains exam-specific information, such as a list of the topics on which you will be tested. These guides are available on the Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert/>.

Facilities



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