

ASP.NET Using C# - .NET 2.0 (5 Days)

Custom Training Institute
9085 Coyote Springs Road
Prescott Valley, AZ 86314
(928) 772-3811
FAX (928) 441-6444

ASP.NET Using C# - .NET 2.0 (CTI 416-2)

This course is an introduction to developing web applications and web services using ASP.NET and C#. It also introduces the new features in ASP.NET 2.0.

Prerequisites: The student must be an experienced application developer or architect with a working knowledge of C#. Experience with ASP and ADO is desirable.

Minimum software requirements: Microsoft Windows XP with Service Pack 2, Visual Studio 2005; or Visual C# 2005 Express Edition and Visual Web Developer 2005 Express Edition. Internet Information Services and SQL Server 2005 Express Edition should be installed.

Minimum hardware requirements for all machines: Pentium PC running at 1 GHz or better; 256 Mb RAM; 4 GB free hard disk space before installation; Internet access; machines must be networked.

Microsoft PowerPoint and Internet access on instructor's workstation for presentation purposes.

Module 1: Introduction to ASP.NET

- From ASP to ASP.NET
- Web Forms
- Web Services
- ASP.NET Features
- ASP.NET 2.0

Module 2: Web Forms Architecture

- Page Class
- Web Forms Life Cycle
- Web Forms Event Model
- Code Behind

Module 3: ASP.NET and HTTP

- Request/Response Programming
- HttpRequest Class
- HttpCollections
- HttpResponse Class
- Redirection
- HttpUtility Class

Module 4: Web Applications Using Visual Studio

- Using Visual Web Developer
- Visual Studio Forms Designer
- Using Components
- Shadow Copying
- Using the Global.asax File
- Data Binding

Module 5: State Management and Web Applications

- Session State
- Application State
- Multithreading Issues
- Cookies

Module 6: Server Controls

- HTML Server Controls
- Web Forms Server Controls
- Rich Controls
- Validation Controls
- User Controls

Module 7: Caching in ASP.NET

- What is Caching?
- Page Level Caching
- Page Fragment Caching
- Optimizing Your ASP.NET Application
- Application Caching

Module 8: ASP.NET Configuration and Security Fundamentals

- Configuration Overview
- Authentication and Authorization
- Forms Authentication
- Windows Authentication
- Security and ASP.NET

Module 9: Debugging, Diagnostics and Error Handling

- Debugging
- Application Tracing
- Page Tracing
- Error Handling

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Module 10: More Server Controls

- New ASP.NET 2.0 Controls
- Menus
- Master Pages

Module 11: Data Access in ASP.NET 2.0

- Data Source Controls
- Connection String Storage
- GridView
- DetailsView
- FormView
- XML Support
- Object Data Sources

Module 12: Personalization and Security

- Configuration Overview
- Themes
- Skins
- Security in ASP.NET 2.0
- Membership and Roles
- Login Controls
- User Profiles
- Web Parts

Module 13: HTTP Pipeline

- Pipeline Architecture
- Context
- Applications
- Handlers
- Modules

Module 14: Database Programming Using ADO.NET

- ADO.NET Overview
- .NET Data Providers
- Using DataReaders
- Using DataSets
- Data Binding
- Interacting with XML Data

Module 15: Introduction to Web Services

- Web Services and Remoting
- XML, SOAP, WSDL
- Web Services Architecture
- Proxies
- Interoperability of Web Services
- Developing Web Services Using Visual
Studio.NET

Appendix A. Learning Resources

Appendix B. Configuring IIS for ASP.NET 2.0