

## ASP.NET USING VISUAL BASIC 2005

**Course Length:** 5 days

**Course Description:** In this course, you'll learn how to use Visual Studio 2005 and Visual Basic 2005 to build ASP.NET 2.0 Web pages and XML Web services. You'll gain an understanding of the new architecture behind ASP.NET 2.0 and how to use the new server controls. You'll learn to create consistent web sites using Master Pages, to improve performance with output caching, add membership features, configure and deploy ASP.NET applications, to authenticate users and limit their access to resources, direct users using new Site Navigation tools and to handle multi-user data access conflicts.

**Audience:** Programmers who will be developing in ASP.NET.

**Prerequisites:** Familiar with Microsoft Windows 2000 or higher, the Internet and building basic Web sites. Some prior experience with Visual Studio will be helpful.

### Course Contents

#### THE EVOLUTION OF APPLICATION DEVELOPMENT

- Introducing Web Development
- A Brief History of Business Computing
- The Internet and the World Wide Web
- Pulling Together Business Computing and the World Wide Web
- Distributing the Work

#### INTRODUCING .NET

- A Brief History of Windows Development
- Components of a .NET Application
- .NET Framework Class Library

#### VISUAL STUDIO .NET

- .NET and Visual Studio .NET
- The Development Environment
- Building a .NET Project

#### INTRODUCTION TO ASP.NET

- A Review of Classic ASP
- ASP.NET Web Applications
- Rendering HTML with Server Controls
- Data Binding in ASP.NET 2.0
- Working with Web Controls
- Displaying Data in Web Controls

#### WHAT'S NEW IN ASP.NET 2.0

- New Features in ASP.NET 2.0
- Designer Features
- Deployment and Configuration Tools
- Increasing Productivity

#### WORKING WITH CONTROLS

- Introduction to Web Controls
- Simple Input Controls
- HyperLink and Button Controls
- List Controls
- Controlling Focus
- Creating Web Forms Controls
- Making Web Forms Controls Work

#### USING RICH SERVER CONTROLS

- Introduction to Rich Controls
- The Calendar Control
- The AdRotator Control
- The XML Control

#### ACCESSING DATA

- Overview of ADO.NET
- Connecting to Data
- Executing Commands
- Working with Data
- Choosing an ADO.NET Provider

#### CONFIGURATION

- Configuration Overview
- Using the Web Site Administration Tool

#### THEMES AND MASTER PAGES

- Creating a Consistent Web Site
- ASP.NET 2.0 Themes
- Master Pages
- Create Named Skins
- Site Navigation
- Providers and Data Sources
- Creating an XML Site Map File
- Site Navigation Controls
- Using the Site Navigation API
- URL Mapping
- Security Trimming

#### DISPLAYING DATA WITH THE GRIDVIEW CONTROL

- Introducing the GridView Control
- Filter Data in the GridView Control
- Allow Users to Select from a DropDownList in the Grid
- Add a Hyperlink to the Grid
- Deleting a Row and Handling Errors

#### CREATING NEW CONTROLS IN ASP.NET

- Two kinds of User-Defined Controls
- Creating a User Control
- A More Complex User Control
- Creating a Custom Control
- Investigating the StateDropDownList Control

#### MANAGING STATE

- Preserving State in Web Applications
- Page-Level State
- Using Cookies to Preserve State
- ASP.NET Session State
- Storing Objects in Session State
- Configuring Session State
- Setting Up an Out-of-Process State Server
- Storing Session State in SQL Server
- Using Cookieless Session IDs
- Application State

#### MANAGING USERS WITH ASP.NET'S

##### MEMBERSHIP FEATURES

- Introduction to Membership and Roles
- Using Membership Controls
- Writing Code to Interact with Membership and Roles

#### IMPROVING PERFORMANCE WITH OUTPUT CACHING

- The Importance of Caching
- Declarative Page Output Caching

- Programming Configuration Files
- Encrypting Configuration Sections
- Reading Application Settings from Web.config

#### **DATA BINDING**

- Introducing Data Source Controls
- Reading and Write Data Using the SqlDataSource Control
- Displaying and Editing Middle-Tier Data using the ObjectDataSource Control
- Displaying XML Data Using the XmlDataSource Control

#### **VALIDATING USER INPUT**

- Overview of ASP.NET Validation Controls
- Using the Simple Validators
- Using the Complex Validators
- Summarizing Results with the ValidationSummary Control
- Separating Validation into Validation Groups

- Caching Page Fragments
- Post-Cache Substitution
- Caching Configuration

#### **USING THE DATALIST AND REPEATER CONTROLS**

- Overview of List-Bound Controls
- Creating a Repeater Control
- Creating a DataList Control

#### **CREATING AND CONSUMING WEB SERVICES**

- The Motivation for XML Web Services
- Creating an XML Web Service with Visual Studio
- Designing XML Web Services
- Creating Web Service Consumers
- Discovering Web Services Using UDDI