

## Course Description

In this course, students will learn to develop advanced ASP.NET MVC and Web Forms applications using .NET Framework 4 tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used.

## Course Outline

### Module 1: Designing for Discoverability

- Overview of Search Engine Optimization
- Creating the Robots and Sitemap Files
- Using ASP.NET Routing

### Module 2: Writing Server-Side Code for Web Forms

- Overview of the Structure of a Web Application
- Controlling ViewState
- Localizing a Web Application
- Persisting Data on a Web Forms Page
- Validating User Input

### Module 3: Optimizing Data Management for Web Forms

- Managing Data by Using LINQ to Entities
- Using Data Source Controls
- Using ASP.NET Dynamic Data

### Module 4: Overview of Web Application Design

- Overview of IIS 7.0
- Overview of ASP.NET 4.0
- Introduction to the MVC Framework
- Overview of the Request Life Cycle

### Module 5: Designing a Web Application

- Web Applications: Case Studies
- Web Application Design Essentials
- Guidelines for Determining When to Use Web Forms and MVC
- Visual Studio 2010 Tools and Technologies for Web Application Design

### Module 6: Developing MVC Models

- Exploring Ways to Create MVC Models
- Creating a Data Repository

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Developing Web Applications with Microsoft Visual Studio 2010

5 DAYS

SATV : YES

## Module 7: Developing MVC Controllers

- Implementing MVC Controllers
- Creating Action Methods

## Module 8: Developing MVC Views

- Implementing MVC Views
- Implementing Strongly-Typed MVC Views
- Implementing Partial MVC Views

## Module 9: Ensuring Quality by Debugging, Unit Testing, and Refactoring

- Debugging and Refactoring Code
- Unit Testing Code
- Processing Unhandled Exceptions
- Test Driven Development

## Module 10: Securing a Web Application

- Configuring Authentication
- Configuring ASP.NET Membership
- Managing Authorization by Using ASP.NET Roles

## Module 11: Applying Master Pages and CSS

- Applying Master Pages
- Applying CSS, Skins, and Themes

## Module 12: Developing Client Side Scripts and Services

- Developing Client-Side Scripts
- Implementing AJAX
- Creating Services

## Module 13: Implementing Advanced AJAX in a Web Application

- Implementing Ajax in ASP.NET MVC Pages Using Microsoft Ajax
- Implementing Ajax in ASP.NET MVC Pages Using jQuery
- Working With jQuery and Ajax Events

## Module 14: Deploying a Web Application

- Overview of Web Application Deployments
- Overview of Web Site Deployments
- Deploying AdventureWorks

## Module 15: Developing a Web Application by Using Silverlight

- Introduction to Rich Internet Applications
- Overview of Silverlight
- Creating a Silverlight Application