

## ASP.NET Core

**Duration: 4 Days**    **Course Code: ASPNET**    **Delivery Method: Virtual Learning**

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### Overview:

#### ASP.NET Core Course Overview

The ASP.NET Core course comprises sessions dealing with ASP.NET Core applications, MVC architecture (including writing models, views and controllers), entity frameworks, dependency injection, actions, Razor syntax, tag helpers, error handling, RESTful APIs, state management, testing, security and deployment.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

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### Target Audience:

#### Who will the Course Benefit?

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### Objectives:

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- This ASP.NET Core course aims to provide the delegate with the knowledge to be able to produce web-based applications that make use of the most popular elements of the framework including MVC, Razor, Entity Framework, tag helpers, Blazor and Web API.
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### Prerequisites:

- Delegates attending this course should have some previous programming experience with C#. This knowledge can be obtained by attendance on the pre-requisite C# Developer course.
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## Content:

### ASP.NET Core Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: INTRODUCING ASP.NET

- ASP.NET Core and ASP.NET Framework
- Application Architecture
- Development tools

#### Session 2: MODEL-VIEW-CONTROLLER (MVC) APPLICATIONS

- MVC and .NET
- Models
- Views
- Controllers
- Blazor

#### Session 3: ENTITY FRAMEWORKS

- Entity Framework Core
- Database Access
- Data Migration
- Lazy,Eager and Explicit Loading

#### Session 4: MODELS

- Implementing Models
- Using Forms
- Validating Data ASP.NET Core Training Course Course Contents - DAY 2

#### Session 5: DEPENDENCY INJECTION

- Configuration Injection
- Action Injection
- Constructor Injection
- Service Injection

#### Session 6: CONTROLLERS

- Controllers and Actions
- Configuring Routes with the Routing Table
- Configuring Routes with Attributes

#### Session 7: NAVIGATION

- Filtering
- Partial Views

#### Session 8: VIEWS

- Razor Markup Language
- Validating View Data
- View Components ASP.NET Core Training Course Course Contents - DAY 3

#### Session 9: TAG HELPERS

- HTML Helpers
- Tag Attributes
- Environment and Link Helpers

#### Session 10: SINGLE PAGE APPLICATIONS

- Razor Pages and SPAs
- Handling Static Content

#### Session 11: ERROR HANDLING

- Custom Error Pages
- Dealing with Custom Exceptions
- Filtering Errors

#### Session 12: RESTFUL APIS

- Web API and RESTful APIs
- HTTP Request and Response
- Web API Action Methods
- Consuming a Web API ASP.NET Core Training Course Course Contents - DAY 4

#### Session 13: STATE MANAGEMENT

- HTTP and State
- Using Cookies to Manage State
- Caching

#### Session 14: UNIT TESTING

- Using xUnit
- Testing Models
- Testing Controllers

#### Session 15: SECURITY

- Authentication and Authorisation
- Using Identity
- Adding Windows Security

#### Session 16: DEPLOYMENT OPTIONS

- Deploying to IIS
- Deploying to Azure

## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

[info@globalknowledge.co.uk](mailto:info@globalknowledge.co.uk)

[www.globalknowledge.com/en-gb/](http://www.globalknowledge.com/en-gb/)

Global Knowledge, Mulberry Business Park, Fishponds Road, Wokingham Berkshire RG41 2GY UK