

SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Computer Information Technology Program
Revision Date: August 2024

I. CATALOG DESCRIPTION

Course Number: INFO2534
Course Title: ASP.NET Using C#
Prerequisite(s): INFO1411, INFO1431, INFO1434, MATH1020 or higher
Catalog Description: This course covers server-side object-oriented programming for the web using the C# programming language and the .NET framework. Topics include the use of web forms and the MVC architecture.

Credit Hours: 3
Class Hours: 45
Lab Hours: 0
Total Contact Hours: 45

II. COURSE OBJECTIVES: *Course will:*

- A. Provide an introduction into MVC
- B. Demonstrate the use of Controllers, Models and Views
- C. Review the use of style sheets in ASP.NET.
- D. Introduce using SQL data sources in the web forms environment.
- E. Demonstrate the differences in ASP web forms and ASP MVC.
- F. Explore MVC scaffolding.
- G. Introduce the use of Identity and Entity frameworks with SQL in ASP.NET MVC.
- H. Explore the use of Agile in web development.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Implement MVC in a web environment
 - 2. Implement the use of multipage web application.
 - 3. Implement use of Controllers
 - 4. Apply webpage to the Controller
 - 5. Demonstrate MVC Core in Web Application
 - 6. Apply the three-tier approach to OOP design in web forms.
 - 7. Demonstrate Entity Framework to access databases.
 - 8. Demonstrate Entity vs Identity Framework
 - 9. Use ASP.NET to create structured web applications.
 - 10. Identify the role of IIS in the development of web applications.
 - 11. Use the identity and entity framework.
 - 12. Demonstrate how to attach SQL data into the web environment.
 - 13. Show how to deploy a MVC Core Application.

IV. General Education Learning Outcomes (GELOs)

- 1. GELO #3: Critical Thinking & Problem Solving
Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE

- A.** The NET Framework
- B.** The ADO.NET object model
- C.** The role of IIS in the web application
- D.** Stateless pages
- E.** MVC controls
- F.** Validation methodology
- G.** Cookies/sessions in web page applications
- H.** Access data
- I.** Structure of an MVC web site
- J.** Use of the Model
- K.** Controller modification
- L.** View, PartialView and ViewModels
- M.** Entity and Identity framework for database access
- N.** Agile in the ASP.NET web environment

V. INSTRUCTIONAL MATERIALS

- A.** Required Text(s): Murach's ASP.NET Core MVC
- B.** Other Resources:
 - 1.** Required software available as a free download
 - 2.** Computer and Internet access

VI. METHODS OF PRESENTATION/INSTRUCTION

- A.** Methods of presentation typically include a combination of the following:
 - 1.** Technology enhanced lectures
 - 2.** Group discussions
 - 3.** Engaged learning activities

VII. METHODS OF EVALUATION

- A.** Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
 - 1.** Attendance and/or participation activities
 - 2.** Homework assignments
 - 3.** Quizzes

VIII. SPECIFIC COURSE REQUIREMENTS

- A.** This course will not qualify as a prerequisite if the student receives a final grade below a C (70%).