

ITT Technical Institute

**SD3440**

**Creating Websites Using ASP.NET**

**Onsite and Online Course**

# **SYLLABUS**

---

**Credit hours:** 4.5


**Contact/Instructional hours:** 56 (34 Theory Hours, 22 Lab Hours)

**Prerequisite(s) and/or Corequisite(s):**

Prerequisites: SD3140 Introduction to Web Interface Design or equivalent, SD3320 Programming in Visual Basic or equivalent

**Course Description:**

This course examines strategies and techniques to develop interactive Websites in the Microsoft ASP.NET environment.



## COURSE SUMMARY

### COURSE DESCRIPTION

This course examines strategies and techniques to develop interactive Websites in the Microsoft ASP.NET environment.

### MAJOR INSTRUCTIONAL AREAS

1. ASP.NET Application Structure
2. Web Forms and Web Controls
3. User Input Validation
4. Site and Page Design
5. Data Access
6. User Authentication and Authorization
7. Creating Objects
8. State Management

### COURSE LEARNING OBJECTIVES

By the end of this course, you should be able to:

1. Describe the components and lifecycle of an ASP.NET application.
2. Add controls to an ASP.NET Web page.
3. Modify the HTML code of an ASP.NET Web page.
4. Add code to an ASP.NET page and control event procedures.
5. Use validation controls to validate user input.
6. Access a database from an ASP.NET application.
7. Use the master page, themes, and skins to provide a consistent look across pages.
8. Implement authentication and authorization.
9. Add a menu to an ASP.NET application.
10. Create components that can be shared across Web pages.
11. Manage state in an ASP.NET application.

## COURSE OUTLINE

### MODULE 1: ASP.NET PROGRAMMING MODEL

#### COURSE LEARNING OBJECTIVES COVERED

- Describe the components and lifecycle of an ASP.NET application.
- Add controls to an ASP.NET Web page.
- Modify the HTML code of an ASP.NET Web page.
- Add code to an ASP.NET page and control event procedures.

#### TOPICS COVERED

- Structure of ASP.NET
- Understanding HTML Controls
- Understanding ASP.NET Pages
- Installing ASP.NET

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF- CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapter 1.	No	4.5 hr
<b>Reading:</b> ITT Tech Virtual Library> Gaylord et al., Jason N. (2013). <i>Professional ASP.Net 4.5 in C# and VB</i> . Indianapolis, IN: John Wiley & Sons, Inc.> Chapter 1.	No	2 hr
<b>Lesson:</b> Study the lesson for this module.	No	1.5 hr
<b>Discussion:</b> Participate in the discussion titled “Differences Between ASP.NET 4.5 and ASP.NET 4.0.”	Yes	N/A
<b>Lab:</b> Complete the lab titled “Create a Dynamic Web Page.”	Yes	N/A
<b>Project:</b> Read and begin the project.	No	1 hr

Total Out-Of-Class Activities: 9 Hours

**MODULE 2: WEB CONTROLS AND USER INPUT AND VALIDATION**

**COURSE LEARNING OBJECTIVES COVERED**

- Add controls to an ASP.NET Web page.
- Add code to an ASP.NET page and control event procedures.
- Use validation controls to validate user input.

**TOPICS COVERED**

- Using Controls to Display Information and Images
- Using Various Validation Controls
- Displaying Calendars, Advertisements, and Different Page Views
- Working with List Controls

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF- CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapters 2, 3, 4, and 10.	No	14 hr
<b>Lesson:</b> Study the lesson for this module.	No	2 hr
<b>Discussion:</b> Participate in the discussion titled “Validation Controls.”	Yes	N/A
<b>Lab 1:</b> Complete the lab titled “Create a Page That Processes User Input.”	Yes	N/A
<b>Lab 2:</b> Complete the lab titled “Create a Movie Fan Club Sign-Up Form.”	Yes	N/A
<b>Exercise:</b> Submit the exercise titled “Web Controls and Validation.”	Yes	2 hr
<b>Project:</b> Continue work on Project Part 1.	No	3 hr

Total Out-Of-Class Activities: 21 Hours

**MODULE 3: DATA ACCESS**

**COURSE LEARNING OBJECTIVES COVERED**

- Access a database from an ASP.NET application.

**TOPICS COVERED**

- Using `DataBound` and `DataSource` Controls
- Using Programmatic Data Binding
- Creating Database Connections and Executing Database Commands
- Working with `GridView`, `DetailView`, and `FormView` Controls

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF- CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapters 8, 9, 11, and 12.	No	13 hr
<b>Reading:</b> ITT Tech Virtual Library Reading> Gaylord et al., Jason N. (2013). <i>Professional ASP.Net 4.5 in C# and VB</i> . Indianapolis, IN: John Wiley & Sons, Inc.> Chapter 8.	No	2 hr
<b>Lesson:</b> Study the lesson for this module.	No	1.5 hr
<b>Lab 1:</b> Complete the lab titled “Create a Web Page That Displays Data.”	Yes	N/A
<b>Lab 2:</b> Complete the lab titled “Create an Application That Allows Users to Modify Data.”	Yes	N/A
<b>Exercise:</b> Submit the exercise titled “Storing and Managing Data.”	Yes	2 hr
<b>Project:</b> Submit Project Part 1.	Yes	3 hr

Total Out-Of-Class Activities: 21.5 Hours

**MODULE 4: MASTER PAGES, THEMES, AND USER MANAGEMENT**

**COURSE LEARNING OBJECTIVES COVERED**

- Use the master page, themes, and skins to provide a consistent look across pages.
- Implement authentication and authorization.

**TOPICS COVERED**

- Creating and Modifying Master Pages
- Creating Themes and Adding Skins
- Using the `Login Control`, the `LoginName Control`, and the `ChangePassword Control`
- Configuring Authentication and Authorization

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF-CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapters 5, 6, 26, and 27.	No	12.5 hr
<b>Lesson:</b> Study the lesson for this module.	No	2 hr
<b>Discussion:</b> Participate in the discussion titled “Authentication and Authorization Strategies.”	Yes	N/A
<b>Lab 1:</b> Complete the lab titled “Create a Website That Uses a Master Page and Themes.”	Yes	N/A
<b>Lab 2:</b> Complete the lab titled “Manage User Access to a Website.”	Yes	N/A
<b>Exercise:</b> Submit the exercise titled “Designing and Security of Web Pages.”	Yes	2.5 hr
<b>Project:</b> Continue work on Project Part 2.	No	3 hr

Total Out-Of-Class Activities: 20 Hours

**MODULE 5: CREATING COMPONENTS AND ADDING MENU**

**COURSE LEARNING OBJECTIVES COVERED**

- Access a database from an ASP.NET application.
- Add a menu to an ASP.NET application.
- Create components that can be shared across Web pages.

**TOPICS COVERED**

- Building Basic Components and Component Libraries
- Handling `ObjectDataSource` Control
- Building Data Access Components
- Using Various Navigation Controls

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF-CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapters 17, 18, 19, and 22.	No	13 hr
<b>Reading:</b> ITT Tech Virtual Library Reading> Gaylord et al., Jason N. (2013). <i>Professional ASP.Net 4.5 in C# and VB</i> . Indianapolis, IN: John Wiley & Sons, Inc.> Chapter 9.	No	2 hr
<b>Lesson:</b> Study the lesson for this module.	No	1.5 hr
<b>Lab 1:</b> Complete the lab titled “Create, Use, and Bind a Component.”	Yes	N/A
<b>Lab 2:</b> Complete the lab titled “Implement Navigation.”	Yes	N/A
<b>Exercise:</b> Submit the exercise titled “Building Components and Applying Navigation Controls.”	Yes	2 hr
<b>Project:</b> Submit Project Part 2.	Yes	3 hr

Total Out-Of-Class Activities: 21.5 Hours

**MODULE 6: MANAGING STATE**

**COURSE LEARNING OBJECTIVES COVERED**

- Describe the components and lifecycle of an ASP.NET application.
- Add controls to an ASP.NET Web page.
- Modify the HTML code of an ASP.NET Web page.
- Add code to an ASP.NET page and control event procedures.
- Use validation controls to validate user input.
- Access a database from an ASP.NET application.
- Use the master page, themes, and skins to provide a consistent look across pages.
- Implement authentication and authorization.
- Add a menu to an ASP.NET application.
- Create components that can be shared across Web pages.
- Manage state in an ASP.NET application.

**TOPICS COVERED**

- Using Browser Cookies
- Using Session State
- Using Profiles

MODULE LEARNING ACTIVITIES	GRADE D	OUT-OF- CLASS TIME
<b>Reading:</b> Walther, Hoffman, & Dudek, Chapter 28.	No	3 hr
<b>Lesson:</b> Study the lesson for this module.	No	1 hr
<b>Final Exam:</b> Prepare for the final exam.	No	5 hr
<b>Lab:</b> Complete the lab titled “Use Session State and Cookies.”	Yes	N/A
<b>Project:</b> Submit Project Part 3.	Yes	2 hr
<b>Final Exam:</b> Take the final exam.	Yes	N/A

Total Out-Of-Class Activities: 11 Hours

**EVALUATION AND GRADING**

**EVALUATION CRITERIA**



The graded assignments will be evaluated using the following weighted categories:

CATEGORY	WEIGHT
Discussion	10%
Lab	25%
Exercise	15%
Project	30%
Final Exam	20%
TOTAL	100%

## GRADE CONVERSION

The final grades will be calculated from the percentages earned in the course, as follows:

GRADE	PERCENTAGE
A (4.0 )	90–100%
B+ (3.5 )	85–89%
B (3.0 )	80–84%
C+ (2.5 )	75–79%
C (2.0 )	70–74%
D+ (1.5 )	65–69%
D (1.0 )	60–64%
F (0.0 )	<60%

## LEARNING MATERIALS AND REFERENCES

### REQUIRED RESOURCES

#### COMPLETE TEXTBOOK PACKAGE

Walther, S., Hoffman, K., & Dudek, N. (2011). *ASP.NET 4 unleashed*. Indianapolis, IN: Pearson Education, Inc.

#### OTHER ITEMS

- Virtual machine with Microsoft Visual Studio
- Microsoft Office
- Microsoft Visio
- Visual Studio 2013 Community Edition\*

\* This software title is available for download from ITT Technical Institute's DreamSpark software download site. For more information, please review the [DreamSpark Implementation Guide](#), available at the ITT Technical Institute Student Portal> Resources> Download Center.

### RECOMMENDED RESOURCES

- Books and Professional Journals
  - Gaylord et al., Jason N. (2013). *Professional ASP.Net 4.5 in C# and VB*. Indianapolis, IN: John Wiley & Sons, Inc.
- ITT Tech Virtual Library (accessed via Student Portal | <https://studentportal.itt-tech.edu>)
  - Basic Search> Browse> Browse by Format> Books> Books24x7>
    - Duckett, J. (2008). *Beginning web programming with HTML, XHTML, and CSS, second edition*. Indianapolis, IN: Wiley Publishing, Inc.
    - Evjen, B., Hanselman, S., Muhammad, F., Sivakumar, S., & Rader, D. (2006). *Professional ASP.NET 2.0 special edition*. Indianapolis, IN: Wiley Publishing, Inc.
    - Hart, C., Kauffman, J., Sussman, D., & Ullman, C. (2006). *Beginning ASP.NET 2.0*. Indianapolis, IN: Wiley Publishing, Inc.
    - Keogh, J. (2005). *ASP.NET 2.0 demystified*. Emeryville, CA: McGraw-Hill\Osborne.

- Lowe, D., Cogswell, J., & Cox, K. (2006). *ASP.NET 2.0 all-in-one desk reference for dummies*. Hoboken, NJ: Wiley Publishing, Inc., Book 1.
- MacDonald, M. (2006). *Beginning ASP.NET 2.0 in VB 2005: From novice to professional*. Berkeley, CA: Apress.
- Moroney, L., & MacDonald, M. (2006). *Pro ASP.NET 2.0 in VB 2005*. Berkeley, CA: Apress.
- Myers, B. R. (2005). *Beginning object-oriented ASP.NET 2.0 with VB.NET: From novice to professional*. Berkeley, CA: Apress.
- Powell, T. A. (2003). *HTML & XHTML: The complete reference, 4E*. Emeryville, CA: McGraw-Hill/Osborne.
- Selly, D., Troelsen, A., & Barnaby, T. (2006). *Expert ASP.Net 2.0 advanced application design*. Berkeley, CA: Apress.
- Tittel, E. Valentine, C., Dykes, L., & Burmeister, M. (2002). *Mastering XHTML premium edition*. Alameda, CA: SYBEX Inc.

## INSTRUCTIONAL METHODS AND TEACHING STRATEGIES

The curriculum employs a variety of instructional methods that support the course objectives while fostering higher cognitive skills. These methods are designed to encourage and engage you in the learning process in order to maximize learning opportunities. The instructional methods include but are not limited to lectures, collaborative learning options, use of technology, and hands-on activities.

To implement the above-mentioned instructional methods, this course uses several teaching strategies, such as lessons and hands-on labs. Your progress will be regularly assessed through a variety of assessment tools including labs, exercises, project, discussions, and the final exam.

## OUT-OF-CLASS WORK

For purposes of defining an academic credit hour for Title IV funding purposes, ITT Technical Institute considers a quarter credit hour to be the equivalent of: (a) at least 10 clock hours of classroom activities and at least 20 clock hours of outside preparation; (b) at least 20 clock hours of laboratory activities; or (c) at least 30 clock hours of externship, practicum, or clinical activities. ITT Technical Institute utilizes a “time-based option” for establishing out-of-class activities, which would equate to two hours of out-of-class activities for every one hour of classroom time. The procedure for determining credit hours for Title IV funding purposes is to divide the total number of classroom, laboratory, externship, practicum, and clinical hours by the conversion ratios specified above. A clock hour is 50 minutes.

A credit hour is an artificial measurement of the amount of learning that can occur in a program course based on a specified amount of time spent on class activities and student preparation during the program course. In conformity with commonly accepted practice in higher education, ITT Technical Institute has institutionally established and determined that credit hours awarded for coursework in this program course (including out-of-class assignments and learning activities described in the “Course Outline” section of this syllabus) are in accordance with the time-based option for awarding academic credit described in the immediately preceding paragraph.

## ACADEMIC INTEGRITY

All students must comply with the policies that regulate all forms of academic dishonesty or academic misconduct. For more information on the academic honesty policies, refer to the Student Handbook and the School Catalog.

## INSTRUCTOR DETAILS

Instructor Name	
Office Hours	
Contact Details	

*(End of Syllabus)*