

Course Syllabus

PREFIX, NUMBER, AND TITLE: CIS 375 Web Application Programming II

CREDIT HOURS: 3

UNIVERSITY NAME: Dakota State University

ACADEMIC TERM/YEAR: Spring 2009

COURSE MEETING TIME AND LOCATION:

Section D04 Internet

Section D05 Internet

INSTRUCTOR'S CONTACT INFORMATION:

Name: Christopher J. Olson

Office: East Hall Room 104B

Phone: 605-256-5688 (office)

605-256-5165 (secretary)

Office hours: Virtual **see Description of Instructional Methods*

Physical - please email for appointment

Email address: chris.olson@dsu.edu

COURSE DESCRIPTION:

Catalog Description: An introduction to the languages used to develop and operate e-commerce sites with focus on server-side technologies. Topics include issues common to the development of e-commerce sites such as mixed technology environments, security, and internationalization.

COURSE PREREQUISITES:

CIS 275

Technology Skills: Word processing, Internet Desire2Learn, and electronic mail. Students will be required to use email for communication. Desire2Learn will be used to deliver course materials and weekly assignments, as well as serve as a communication tool between students and faculty.

***DESCRIPTION OF INSTRUCTIONAL METHODS:**

Students will be given lab assignments, quizzes, and exams through an online medium. Students should expect to login to the Desire2Learn site several times a week. Students must be motivated to stay on task and complete the coursework without benefit of lecture sessions. Keeping up on reading the assigned chapters and notes will be absolutely necessary for completing the labs (assignments) on time.

You are expected to use the steps in the textbook to complete the Web pages in the tutorials. Doing so should give you the skills you need in order to successfully complete the

lab assignments. Looking the textbook over or reading it several times is not the same as actually using the code to create the desired Web pages.

Because this is an online class delivered through Desire2Learn, it is crucial that you have reliable access to the Internet on a regular basis. You should have a backup plan if needed, as the inability to connect to the Internet is **NOT** a valid excuse for missing a submission deadline.

I will be available most afternoons and evenings to answer questions. Email is my preferred form of communication and I check regularly throughout the day. While I cannot guarantee you an immediate answer to your inquiry, I will always do my best to reply in a timely manner. It is unlikely that you will ever have to wait more than a day for a response.

COURSE REQUIREMENTS:

Required Textbook And Other References:

Beginning ASP.NET 3.5: In C# and VB
Imar Spaanjaars
ISBN:978-0-470-18759-3
©2008
768 pages

Required Software: You will need some version of Microsoft Web Developer 2008 for this class. DSU Tablet PCs should have Visual Studio 2008 (which includes Visual Web Developer 2008) installed. If not, contact the instructor for directions on how it can be downloaded for free.

System Requirements: To run the software required for this class, you will need a computer with either Windows XP or Windows Vista. The table below lists the hardware requirements:

	CPU Processor Speed	Memory (RAM)	Display
Minimum	1.6 GHz or higher	192 MB or more	1024 x 768
Recommended	2.2 GHz or higher	384 MB or more	1280 x 1024
Windows Vista	2.4 GHz or higher	768 MB or more	1280 x 1024

As strongly as I can, I suggest having access to a high speed broadband Internet connection. Dial up is unreliable for tests and quizzes.

Attendance Policy: Attendance is expected through Desire2Learn and the submission of assignments, quizzes, and tests. You will not be successful in this course without regular participation and attendance through Desire2Learn.

Academic Integrity Policy: Copying and cheating will be severely punished. Identical or nearly identical electronic submissions of any form will be closely scrutinized to detect cheating. While the free flow of ideas and information is essential to an education, the exchange of assignments and materials cannot be. Dakota State University pledges itself to continue its commitment to provide students with a quality education. To this end, the faculty of DSU will not tolerate academic dishonesty in any form. The Academic Integrity

Policy clarifies the definition of academic dishonesty, the student's rights, and the faculty rights and responsibilities to prohibit, limit, and censure violations of academic integrity. Please see the student handbook for penalties concerning student cheating. [DSU's Academic Integrity Policy is available online.](#)

All forms of academic dishonesty will result in a failing grade (as in absolutely no credit) on the assignment. If you copy from another or allow another to copy from you, you have cheated. Any student who does so will automatically be penalized so that a B will be the highest letter grade he or she may earn for an overall course grade. A formal acknowledgement that you violated academic integrity policies will be placed in your permanent academic records. If there is a second offense by the same student(s), they will fail the course.

Copying code - even a single line - from another past or present student and modifying a few variable names, comments, or whitespace is not doing your own work and is considered cheating. I've been around code long enough to know when it has been copied from another student. Don't cheat. You will get caught. I wouldn't think I would need to include these statements, but past experience has taught me otherwise.

Make-up Policy for Missed Submission Deadlines:

- **Tests:** Make-up examinations **will not be given unless prior approval is granted from the course instructor.** Tests will be given via Desire2Learn and only made available at certain times. I have tests available for a full week, so plan accordingly so you can take the test before the deadline passes.
- **Assignments:** Late labs will be penalized 5 points per school day and will not be accepted after 4 days. The deadlines for assignments will be followed. Exceptions may be granted in special situations, but this will be the exception rather than the rule. Those with extenuating circumstances should ask for an extension before the due date.
- **Quizzes:** Quizzes cannot be made up.

FREEDOM IN LEARNING STATEMENT:

Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. It has always been the policy of Dakota State University to allow students to appeal the decisions of faculty, administrative, and staff members and the decisions of institutional committees. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

ADA STATEMENT:

If you have a documented disability and/or anticipate needing accommodations (e.g., non-standard note taking, test modifications) in this course, please arrange to meet with the instructor. Also, please contact Dakota State University's ADA coordinator, Keith Bundy in the Student Development Office located in the Trojan Center Underground or at 256-5121, as soon as possible. The DSU website containing additional information, along with the form to request accommodations is http://www.departments.dsu.edu/disability_services/. You

will need to provide documentation of your disability. The ADA coordinator must confirm the need for accommodations before officially authorizing them.

COURSE GOALS:

Chapter Topics

Chapter 1: Getting Started with ASP.NET 3.5

- Microsoft Visual Web Developer
- Getting Visual Web Developer
- Installing Visual Web Developer Express Edition
- Creating Your First ASP.NET 3.5 Web Site
- An Introduction to ASP.NET 3.5
- Understanding HTML
- A First Look at ASP.NET Markup
- A Tour of the IDE
- The Main Development Area
- Informational Windows
- Customizing the IDE
- Rearranging Windows
- Modifying the Toolbox
- Customizing the Document Window
- Customizing Toolbars
- Customizing Keyboard Shortcuts
- Resetting Your Changes

Chapter 2: Building an ASP.NET Web Site

- Creating Web Sites with VWD 2008
- Different Project Types
- Choosing the Right Web Site Template
- Creating and Opening a New Web Site
- Working with Files in Your Web Site
- The Many File Types of an ASP.NET 3.5 Web Site
- Adding Existing Files
- Organizing Your Site
- Special File Types
- Working with Web Forms
- The Different Views on Web Forms
- Choosing between Code Behind and Pages with Inline Code
- Adding Markup to Your Page
- Connecting Pages

Chapter 3: Designing Your Web Pages

- Why Do You Need CSS?
- Problems of HTML Formatting
- How CSS Fixes Formatting Problems
- An Introduction to CSS
- CSS — The Language
- The Style Sheet

- Adding CSS to Your Pages
- Working with CSS in Visual Web Developer
- Creating New Styles in External Style Sheets
- Creating Embedded and Inline Style Sheets
- Applying Styles
- Managing Styles

Chapter 4: Working with ASP.NET Controls

- Introduction to Server Controls
- A Closer Look at ASP.NET Server Controls
- Defining Controls in Your Pages
- Common Properties for All Controls
- Types of Controls
- Standard Controls
- HTML Controls
- Data Controls
- Validation Controls
- Navigation Controls
- Login Controls
- Ajax Extensions
- WebParts
- The ASP.NET State Engine
- What Is State and Why Is It Important?
- How the State Engine Works
- Not All Controls Rely on ViewState

Chapter 5: Programming Your ASP.NET Web Pages

- Introduction to Programming
- Data Types and Variables
- Converting Data Types
- Using Arrays and Collections
- Statements
- Operators
- Making Decisions
- Loops
- Organizing Code
- Methods: Functions and Subroutines
- The App_Code Folder
- Organizing Code with Namespaces
- Writing Comments
- Object Orientation Basics
- Important OO Terminology

Chapter 6: Creating Consistent Looking Web Sites

- Consistent Page Layout with Master Pages
- Creating Master Pages
- Creating Content Pages
- Using a Centralized Base Page
- An Introduction to the ASP.NET Page Life Cycle

- Implementing the Base Page
- Creating Reusable Page Templates
- Themes
- Different Types of Themes
- Choosing Between Theme and StyleSheetTheme
- Applying Themes
- Extending Themes
- Dynamically Switching Themes
- Skins
- Creating a Skin File
- Named Skins
- A Final Note on Skins

Chapter 7: Navigation

- Different Ways to Move around Your Site
- Understanding Absolute and Relative URLs
- Understanding Default Documents
- Using the Navigation Controls
- Architecture of the Navigation Controls
- Examining the Web.sitemap File
- Using the Menu Control
- Using the TreeView Control
- Using the SiteMapPath Control
- Programmatic Redirection
- Programmatically Redirecting the Client to a Different Page
- Server-Side Redirects

Chapter 8: User Controls

- Introduction to User Controls
- Creating User Controls
- Adding User Controls to a Content Page or Master Page
- Site-Wide Registration of User Controls
- User Control Caveats
- Adding Logic to Your User Controls
- Creating Your Own Data Types for Properties
- Implementing ViewState Properties
- ViewState Considerations

Chapter 9: Validating User Input

- Gathering Data from the User
- Validating User Input in Web Forms
- Processing Data at the Server
- Sending E-mail from Your Web Site
- Reading from Text Files

Chapter 10: ASP.NET AJAX

- Introducing Ajax
- Using ASP.NET AJAX in Your Projects

- Creating Flicker-Free Pages
- Providing Feedback to Users
- Using the Timer Control
- Using Web Services in Ajax Web Sites
- What Are Web Services?
- Creating Web Services
- Using Web Services in Your Ajax Web Site

Chapter 11: Introduction to Databases

- What Is a Database?
- Different Kinds of Relational Databases
- Using SQL to Work with Database Data
- Retrieving and Manipulating Data
- Creating Your Own Tables
- Data Types in SQL Server
- Understanding Primary Keys and Identities
- Creating Relationships Between Tables

Chapter 12: Displaying and Updating Data

- Data Controls
- Data-Bound Controls
- Data Source Controls
- Data Source and Data-Bound Controls Working Together
- Displaying and Editing Data with GridView
- Inserting Data with DetailsView
- Storing Your Connection Strings in web.config
- Filtering Data
- Customizing the Appearance of the Data Controls
- Configuring Columns or Fields of Data-Bound Controls
- Updating and Inserting Data
- Using DetailsView to Insert and Update Data

Chapter 13: LINQ

- Introducing LINQ
- Different Types of LINQ
- Introducing LINQ to SQL
- Mapping Your Data Model to an Object Model
- Introducing Query Syntax
- Standard Query Operators
- Shaping Data with Anonymous Types
- Using Server Controls with LINQ Queries
- New Controls Introduced in ASP.NET 3.5

Chapter 14: Presenting Data — Advanced Topics

- Formatting Your Controls Using Styles
- An Introduction to Styles
- Combining Styles, Themes, and Skins
- Handling Events

- The ASP.NET Page and Controls Life Cycles Revisited
- Handling Errors that Occur in the Data Source Controls
- Caching
- Common Pitfalls with Caching Data
- Different Ways to Cache Data in ASP.NET Web Applications

Chapter 15: Security in Your ASP.NET 3.5 Web Site

- Introducing Security
- Identity: Who Are You?
- Authentication: How Can You Prove Who You Are?
- Authorization: What Are You Allowed to Do?
- An Introduction to the ASP.NET Application Services
- Introducing the Login Controls
- The Login Controls
- Configuring Your Web Application
- The Role Manager
- Configuring the Role Manager
- Managing Users with the WSAT
- Configuring the Web Application to Work with Roles
- Programmatically Checking Roles

ACCREDITING AGENCY STANDARDS ADDRESSED IN THE COURSE:

NCATE: Standard #1 Candidate Knowledge, Skills, and dispositions. Candidates preparing to work in schools as teachers or other professional school personnel know and demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions necessary to help all students learn. Assessments indicate that candidates meet professional, state, and institutional standards at professionally acceptable levels.

DECA: 24:16:08:23. 7-12 business education program. A 7-12 business education program shall comply with all standards in general education, professional education, and 7-12 secondary education program requirements, and require coursework sufficient to constitute a major, with at least 50 percent in upper division coursework, which includes the following:

1. Study of accounting, computation, and finance;
2. Study of economics and international business;
3. Study of business law, management, marketing, entrepreneurship education, and interrelationships of business functions, including national policies, ethics, and political thinking;
4. Study of communications and career development;
5. Study of information systems;
6. Study of office technology, including study related to 7-12 program planning and development; and
7. Business-related occupational work-based practicum or internship.

DECA: 24:16:08:35. K-12 educational technology program. A K-12 educational technology education program shall comply with all standards in general education, professional education, and K-12 education program requirements, and require course work sufficient to constitute a major, with 50 percent in upper division coursework, which includes the following:

1. Study in basic educational technology that builds a foundation for using computers and related technologies in educational setting. Content includes:
 - a. Basic computer/technology operations and concepts;
 - b. Personal and professional use of technology; and
 - c. Appropriate use of technology in instruction.
2. Study in basic educational technology that provides concepts and skills preparing teachers to teach applications and use technology to support other content areas. Topics include:
 - a. Social, ethical, and human issues;
 - b. Productivity tools;
 - c. Telecommunications and information access;
 - d. Research, problem solving, and product development;
3. Preparation in educational technology that prepares teachers for integrating teaching methodologies with knowledge about use of technology to support teaching and learning. Content includes:
 - a. Teaching methodology; and
 - b. Hardware/software selection, installation, and maintenance; and
4. Study in educational technology leadership that prepares teachers for exhibiting leadership in the identification, selection, installation, maintenance, and management of computing hardware and software and the uses of computers and related technologies throughout the curriculum. Content includes:
 - a. Research and theories;
 - b. Instructional design and product development;
 - c. Information access and delivery;
 - d. Operating systems; and
 - e. Software/hardware selection, installation, and maintenance.

EVALUATION PROCEDURES:

Grade Composition:

Submission	Quantity	Points per Submission	Total Points	% of Grade
Tests	3	50	150	30%
Assignments	12	25	300	60%
Quizzes	5	10	50	10%
TOTAL	-	-	500	100%

Grading Scale:

Total Points	% Equivalent	Letter Grade
450 to 500	90 - 100%	A
400 to 449	80 - 89.99%	B
350 to 399	70 - 79.99%	C
300 to 349	60 - 69.99%	D
0 to 299	below 60 %	F

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The class officially ends Friday, May 8, 2008 at 5 PM Central. The last test and all coursework must be completed before that time. No exceptions.

TENTATIVE COURSE OUTLINE:

The instructor reserves the right to make adjustments in the course outline to better meet the needs of the students.

Week	Chapter	Labs	Quizzes	Tests	Due Date
Week 1	Chapter 1: Getting Started with ASP.NET 3.5		Quiz 1		01/18/09
Week 2	Chapter 2: Building an ASP.NET Web Site	Lab 1			01/25/09
Week 3	Chapter 3: Designing Your Web Pages		Quiz 2		02/01/09
Week 4	Chapter 4: Working with ASP.NET Controls	Lab 2			02/08/09
Week 5	Chapter 5: Programming Your ASP.NET Web Pages	Lab 3			02/15/09
Week 6	Chapter 6: Creating Consistent Looking Web Sites	Lab 4		Test 1	02/22/09
Week 7	Chapter 7: Navigation		Quiz 3		03/01/09
Week 8	Chapter 8: User Controls	Lab 5			03/08/09
<i>*** Spring Break - March 9 to March 15 ***</i>					
Week 9	Chapter 9: Validating User Input	Lab 6			03/22/09
Week 10	Chapter 10: ASP.NET AJAX	Lab 7	Quiz 4		03/29/09
Week 11	Chapter 11: Introduction to Databases	Lab 8		Test 2	04/05/09
Week 12	Chapter 12: Displaying and Updating Data	Lab 9	Quiz 5		04/12/09
Week 13	Chapter 13: LINQ	Lab 10			04/19/09
Week 14	Chapter 14: Presenting Data — Advanced Topics	Lab 11			04/26/09
Week 15	Chapter 15: Security in Your ASP.NET 3.5 Web Site	Lab 12			05/03/09
Week 16				Test 3	05/08/09

ADDITIONAL INFORMATION:

Modifications to the Course: The instructor reserves the right to make adjustments to this syllabus during the course of the semester in order to better meet the needs of the students.