

Syllabus for CS 295N, Web Development 1: ASP.NET

Fall 2017

Course Number	CS 295N
CRN	22568
Classroom	19/126
Credits	4
Day & Time	M, W 2:00 – 3:50

Instructor	Brian Bird
E-mail	birdb@lanecc.edu
Office	Building 19, Room 152
Office Phone	541-463-3024 (e-mail is better)
Office Hours	M, W: 4:00 - 4:50
Lab Hours	Tu, Th: 2:00 - 3:50

Course Description

This course provides an introduction to server-side programming in C# using the ASP.NET framework. You will learn the concepts, and skills necessary to analyze web development problems from an object oriented perspective in order to develop extensible web applications. The course will provide you with an introduction to server-side web programming using ASP.NET Razor Pages as well as REST web services that are consumed by client side AJAX code. Programming assignments will consist of guided tutorial exercises as well as labs in which you will design and program a web app on your own.

Learning Outcome

To be able to design and program a web site that uses the ASP.NET framework for a moderately complex web application.

Course Content

Technologies

C#	JavaScript / AJAX	Visual Studio
ASP.NET Razor Pages	ASP.NET Web API	REST web service
SQL Server	LINQ	Entity Framework

Themes and Issues

Software engineering	Architectural Design Patterns	Test-driven development
Web standards	Extensibility	Object oriented programming
Separation of concerns	Avoiding dependencies	Data driven web applications

Skills

Develop and publish ASP.NET web sites using server-side C# and Razor Pages.
Develop and publish ASP.NET web apps using a REST web service and a JavaScript client
Effectively use software development tools like test driven development
Design, implement, test and debug a web application
Design and manage an SQL Server database that is used by a web application

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Learning Resources

Textbook

There is no textbook for this course. We will be using the online tutorials listed in the syllabus and on the Moodle course pages.

Software

The hardware and software required for the course are available to all students in the CIT Main Lab on campus. You paid a fee when you registered for this course that provides you with unlimited access to CIT lab facilities.

Visual Studio (Mac OS and Windows) and Visual Studio Code (Mac OS, Windows, and Linux) will be the development tools provided in class and in the CIT Main Lab. This software can be obtained free of charge through your LCC Microsoft Imagine account (formerly Microsoft Dream Spark, and before that called MSDNAA),

<http://e5.onthehub.com/WebStore/Welcome.aspx?vsro=8&ws=EC37AD18-ED9B-E011-969D-0030487D8897>. You can download it or borrow the setup DVD from the CIT computer lab.

You may alternatively use Visual Studio Community edition which is a free download from Microsoft at www.visualstudio.com/en-us/products/visual-studio-community-vs. You may also use Visual Studio code which is also a free download at <https://code.visualstudio.com>

Web Sites

<https://classes.lanecc.edu> will give you access to the Moodle site for the course.

You will be deploying web apps that you create to the Microsoft Azure cloud. You are entitled to a free Azure account through LCC's Microsoft Imagine subscription as described here:

<https://azure.microsoft.com/en-us/offers/ms-azr-0144p>

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Assessment and Grading

Specific grading criteria will be applied to each of the labs, quizzes, and exams you will be working on in this class. Part of the lab involves peer evaluation. You will be provided with lab evaluation worksheets for each lab. Attendance is not graded.

The table below summarizes the grade distribution for each of the assessment tasks:

<i>Assessment Activities</i>	<i>Points for each</i>	<i>Total Points</i>	<i>Total Percentage</i>
8 Labs	60	480	48%
8 Lab Reviews	10	80	8%
Term Project	440	440	44%

Letter grades for the course will be determined by the following percentages:

	-		+
<i>A</i>	90 – 91	92 – 97	98 – 100
<i>B</i>	80 – 81	82 – 87	88 – 89
<i>C</i>	70 – 71	72 – 77	78 – 79
<i>D</i>	60 – 61	62 – 67	68 – 69
<i>F</i>	Below 60		

Late Work

- The grade for labs submitted after the due date will be reduced by 10%.
- Exams cannot be taken after the due date. Plan ahead!
- Exceptions will only be made for severe illness or emergency situations.

Academic Honesty

While students are encouraged to discuss labs and to use each other as resources, each student is responsible for his/her own work. In other words, you can help each other, but you can't copy any part of someone else's work. The end product must be entirely your own individual work.

Attendance

Class attendance is not graded but will be essential for successful completion of the class. Students who miss a class are responsible for obtaining the course content provided in class and mastering it.

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Tentative Course Schedule

Week	Topic / In-class exercises	On your own: reading, exercises, labs	Due date
1	Intro to Razor Pages https://docs.microsoft.com/en-us/aspnet/core/mvc/razor-pages/?tabs=visual-studio	Tutorial: Intro to Razor Pages Lab 1 beta: A. Guess my number game B. Age calculator	Saturday
2	Forms and Tag Helpers, Publish to Azure https://docs.microsoft.com/en-us/aspnet/core/tutorials/publish-to-azure-webapp-using-vs	Lab 1: review of your lab partner's beta version Lab 1: production version Lab 2 beta: A. Tic-Tac-Toe B. Rock paper scissors	Monday Wednesday Saturday
3	Annotation and validation, Unit Testing https://docs.microsoft.com/en-us/dotnet/articles/core/testing/using-mstest-on-windows	Lab 2: review of your lab partner's beta version Lab 2: production version Lab 3: beta	Monday Wednesday Saturday
4	Entity Framework https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-mvc-app/adding-model https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-mvc-app/working-with-sql	Lab 3: review of your lab partner's beta version Lab 3: production version Lab 4: beta	Monday Wednesday Saturday
5	Authentication and Authorization	Lab 4: review of your lab partner's beta version Lab 4: production version Lab 5: beta	Monday Wednesday Saturday

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6	Term Project Part 1	Lab 5: review of your lab partner's beta version Lab 5: production version Term Project 1: beta	Monday Wed Saturday
7	Consuming REST Web Services	Term Project 1: review of your lab partner's beta version Term Project 1: production version Lab 6: beta	Monday Wednesday Saturday
8	ASP.NET Web API	Lab 6: review of your lab partner's beta version Lab 6: production version Lab 7: beta	Monday Wednesday Saturday
9	AJAX	Lab 7: review of your lab partner's beta version Lab 7: production version Lab 8: beta	Monday Wednesday Saturday
10	Term Project 2	Lab 8: review of your lab partner's beta version Lab 8: production version Term Project 2: beta, review Term Project 2: production version	Monday Wednesday Wednesday Saturday
11	Finals Week Final Project Presentations	No reading, exercise or lab.	Wednesday

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Weekly Schedule (after the first week)

Monday

- Complete a review of last week's lab work for your lab partner

Wednesday

- Submit the production (final) version of your lab work from last week and the completed review form for your lab work

Saturday

- Post the beta (draft) version of your lab work for this week

Academic Calendar for Fall Term 2017

First day of class	9/25
Last day to receive refund	10/1, 11:59 pm
Veteran's. holiday	11/10 (Friday)
Thanksgiving vacation	11/23 – 26 (Monday – Thursday)
Last day for schedule changes	11/17
Finals week	12/4 – 9
Term ends	12/9
3/25/17	

Disability Services

If you need support or assistance because of a disability, you may be eligible for academic accommodations through Disability Services. For more information, contact Disability Services at 463-5150 (voice) or 463-3079 (TTY), or stop by building 1, room 218.