Syllabus for CS296N, Web Development 2: ASP.NET
Winter 2018

Course Number	CS 296N	**Instructor**	Brian Bird
CRN	32547	**E-mail**	birdb@lanecc.edu
Classroom	Building 19, Room 120	**Office**	Building 19, Room 152
Credits	4	**Office Phone**	541-463-3024
Day & Time	T, Th, 10:00 – 11:50	**Office Hours** **Lab Hours**	M, W: 2:00 - 3:00 Lab: Tu, Th: 2:30 – 4:30

Course Description
This course continues coverage of server-side programming in C# using the ASP.NET framework. You will learn the concepts underlying the MVC (Model View Controller) design pattern and learn to use the Microsoft ASP.NET Core MVC framework with Entity Framework and SQL Server. Learning activities will include guided tutorial exercises as well as lab assignments in which you will design and program web apps on your own.

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

Course Content

Technologies

ASP.NET	Visual Studio	ASP.NET Core MVC
C#	DotNet Core	Razor
LINQ	xUnit	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

Use Visual Studio to develop and publish ASP.NET Core MVC web sites.
Effectively use software development tools like a unit test framework
Design, implement, test and debug a web application
Design and manage an SQL Server database that is used by an MVC web application

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Learning Resources

Textbook

Pro ASP.NET Core MVC 2, 7th Edition, by Adam Freeman, Apress, 2017 ISBN: 978-1-4842-3149-4 is the textbook for the course. The source code for the sample programs in the text is available for download on GitHub: https://github.com/apress/pro-asp.net-core-mvc-2

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 2017 will be the development environment 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), 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 2017 Community edition which is a free download from Microsoft at www.visualstudio.com/en-us/products/visual-studio-community-vs.

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

Syllabus for CS296N, Web Development 2: ASP.NET
Winter 2018

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:

Assessment Activities	***Points for each***	***Total Points***	***Total Percentage***
8 Labs	50	400	40%
8 Code Reviews	10	80	8%
Midterm and Final Exams	100/150	250	25%
Term Project	270	270	27%

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

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

Late Work

- The grade for labs submitted after the due date will be reduced by 10%.
    - Late labs 1 – 3 will only be accepted before the midterm exam.
    - Late labs 4 – 8 will only be accepted before the final exam.
- Quizzes and 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.

Syllabus for CS296N, Web Development 2: ASP.NET
Winter 2018

Tentative Course Schedule

Week	*Topics*	*Reading*	*Activities*
1	**Intro to MVC**	Skim Freeman Ch. 1 – Core MVC in Context Read Freeman Ch. 3– The MVC Pattern	Lab 1: Hello Android – Beta Freeman Ch. 2 Exercise, Skeletal web site
2	**Controllers and Views**	Skim Freeman Ch. 4 – Essential Language Features Skim Freeman Ch. 5 – Working with Razor Read Freeman Ch. 17 – Controllers and Actions https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-mvc-app/adding-controller	Lab 1 code review Lab 1 production version. Lab 2 beta
3	**Unit Testing with Repositories and DI**	Skim: Freeman Ch. 6 – Working with Visual Studio Read Ch. 7 through pg. 171– Unit Testing MVC Applications • https://docs.microsoft.com/en-us/aspnet/core/mvc/controllers/dependency-injection • https://docs.microsoft.com/en-us/aspnet/core/mvc/controllers/testing	Lab 2 code review Lab 2 production version Lab 3 Beta
4	**Entity Framework and Database**	Read Freeman Ch. 8 – SportsStore, through the section on seed data Review Freeman Ch. 18 – Dependency Injection	Lab 3 code review Lab 4 beta Lab 3 Release version
5	**Bower and JavaScript frameworks**	Review: Freeman Ch. 6 – Working with Visual Studio, the section on Bower Continue Freeman Ch. 8 – SportsStore, the section on Bootstrap Skim Freeman Ch. 10 – SportsStore, the section on FontAwesome	Reading quiz 5 Lab 4 code review Lab 5 beta: Lab 4 Release version

Syllabus for CS296N, Web Development 2: ASP.NET
Winter 2018

6	**Midterm**		
7	**Authorization**	Read Freeman Ch. 12 – SportsStore: Security and Deployment Read Freeman Ch. 28 – Getting Started with Identity	Reading quiz 6 Lab 5 code review Lab 6 beta Lab 5 Release version
8	**Authentication**	Continue Freeman Ch. 12 – SportsStore: Security and Deployment Read Freeman Ch. 29 – Getting Started with Identity	Reading quiz 7 Lab 6 code review Lab 7 beta Lab 6 Release version
9	**TBD**		Reading quiz 8 Lab 7 code review Lab 8 Beta: TBD Lab 7 Release
10	**TBD**		Lab 8 code review Lab 8 Release
11	Finals Week	No reading, exercise or lab.	
	Final Project Presentations		

Syllabus for CS296N, Web Development 2: ASP.NET
Winter 2018

Weekly Schedule (after the first week)

Saturday

Post the beta (draft) version of this week's lab assignment
Submit the production (final) version of last week's lab work

Tuesday

Complete a review of your lab partner's beta version
Take the reading quiz

Academic Calendar for Winter Term 2018

First day of class	1/8
Last day to receive refund	1/14, 11:59 pm
Martin Luther King Jr. holiday	1/15
President's Day holiday	2/19
Last day for schedule changes	3/2
Finals week	3/19 – 3/24
Term ends	3/25

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.