| Course Number | CS 296N | Instructor | Brian Bird |
|---------------|----------------------|--------------|-----------------------|
| CRN | 32672 | E-mail _ | birdb@lanecc.edu |
| Classroom | 19/120 | Office | Building 19, Room 152 |
| Credits | 4 | Office Phone | 541-463-3024 |
| Day & Time | T, Th, 10:00 – 11:50 | Office Hours | M - Th, 2:30 - 3:30 |

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 MVC framework with SQL Server. Programming assignments will consist of guided tutorial exercises as well as labs in which you will design and program a complete web site on your own. In the last part of the term we will start a large-scale team project that will be continued in the Capstone Project course next term.

Learning Outcome

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

Course Content

Technologies

| ASP.NET | Visual Studio | ASP.NET MVC |
|---------|---------------|------------------|
| C# | T-SQL | Razor |
| LINQ | Git | 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 MVC web sites. | | |
|---|--|--|
| Effectively use software development tools like the MS 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 | | |

Learning Resources

Textbook

Pro ASP.NET Core MVC, 6th Edition, by Adam Freeman, Apress, 2016 ISBN-13: 978-1484203989 is the textbook for the course. The source code for the sample programs in the text is available for download on the publisher's web site: http://www.apress.com/us/book/9781484203989

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 2015 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, 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 2015 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

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 Lab Reviews | 10 | 80 | 8% |
| 10 Tutorial exercises | 10 | 100 | 10% |
| Midterm exam | 150 | 150 | 15% |
| Term Project | 100 | 100 | 10% |
| Final exam | 170 | 170 | 17% |

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

| | - | <u> </u> | + |
|----------------|----------|----------|----------|
| A | 90 – 91 | 92 – 97 | 98 – 100 |
| В | 80 – 81 | 82 - 87 | 88 – 89 |
| $oldsymbol{C}$ | 70 – 71 | 72 – 77 | 78 – 79 |
| D | 60 – 61 | 62 – 67 | 68 – 69 |
| $oldsymbol{F}$ | Below 60 | | |

Late Work

- The grade for labs submitted after the due date will be reduced by 10%. Labs submitted after the in-class code review will be reduced by 25%
- 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.