ISM 672 - 02
Application Design and Programming
Fall 2020

UNC GREENSBORO
Bryan School *of*
Business *and* **Economics**

COURSE SYLLABUS

Instructor Information

Instructor: Franck Soh, PhD
Office: 489, Bryan Building
E-Mail Address: f_sohnoume@uncg.edu
Course Meeting Time: Monday 5:30 to 7pm
Office Hours: Monday 2 to 5pm or by Appointment

Course Description

Apply fundamental programming concepts to design and implement applications for the Web. This course provides students the necessary foundations for developing Web Applications and evaluating entrepreneurial opportunities.

Course Goals

Upon successful completion of this course students will be able to:
1. Evaluate and Design the architecture of contemporary Business Applications
2. Analyze programming principles to develop applications.
3. Apply programming concepts to develop applications.
4. Implement programming techniques to develop applications.
5. Test technologies needed for developing applications.
6. Evaluate entrepreneurial opportunities related to using Web applications and technologies.
7. Synthesize managerial and entrepreneurial issues related to using applications in a new or existing business.

Required Textbook and Other Required Materials

I do not require you to buy any textbooks for the course. The following two books available for you to download in the library as eBooks. We will use these as text and reference materials for the course. I encourage you to download and review these books. I expect that we will completely cover the first book and make good headway into the second.

(Note: If this is your first time using Visual Studio or indeed your first time programming, reviewing the first few chapters of the second book that introduces you to the VS environment will help you prepare for the course.)

    i.   Perkins, B., Hammer, J., & Reid, J. (2018). Beginning C# 7 programming with visual studio 2017. Indianapolis, IN: John Wiley and Sons. (2018). (Available at: https://uncg.on.worldcat.org/oclc/1029545729)

ii.   Johnson, B., (2018). Professional visual studio 2017. Indianapolis, IN: Wrox, a Wiley Brand. (2018) (Available at: https://uncg.on.worldcat.org/oclc/1112100458)

In addition, there are multiple other good reference books with different strengths in different aspects of our course. Some books are strong on Visual Studio and weak on the language, others are good in web application but weak on desktop applications. Among them the following may be of interest:

i.   Taher, R (2019). Hand-on Object-Oriented Programming with C# by Packt Publishing. Available at: (https://uncg.on.worldcat.org/oclc/1097572727)

ii.   Sharp, J. (2018). Microsoft visual c# step by step (Ninth ed., Step-by-step) Pearson Education. (2018). Available at: https://uncg.on.worldcat.org/oclc/1045428992

iii.   Troelsen, A. (2017). Pro c# 7: With .net and .net core (Eighth ed.) Apress. (2017). Available at: (https://uncg.on.worldcat.org/oclc/1037100055)

I encourage you to search and share your findings as you go through the course and help everyone benefit from your perspectives.

Canvas Learning Management System

UNCG Canvas is available at https://canvas.uncg.edu. Course materials, announcements and updates will be posted on Canvas regularly. Please check canvas daily for announcements, discussions, and materials.

IDE (Integrated Development Environment)

We will use Visual Studio 2019. While VS 2017 is available, our course is geared towards VS 2019 and there is not a whole lot of difference between them. You are welcome to use VS 2017 if you wish.

All ISSCM students have access to Visual Studio Enterprise through UNCG's Microsoft Academic Alliance program here: https://azureforeducation.microsoft.com/devtools.

You will need to log in with your UNCG username and password. You can then download the VS 2019 Enterprise (which comes with SQL Server Local DB) and install it on your machine. We will use both extensively throughout the course. Detailed information on installation of VS 2019 is provided in canvas.

Tentative Schedule

A flexible schedule of topics and reading assignments is provided on Canvas. You are responsible for checking the schedule, coming to class prepared, and finding out if in-class assignments were made in case of your absence. The chapters are assigned in the schedule, and additional reading may be provided occasionally.

Changes to the Syllabus/Schedule

The syllabus and schedule are tool to help you plan your time. Every effort is made to make the syllabus and schedule as complete as possible, but there may be occasions when changes are required, including changes in the grading components, due dates, and exams dates. The instructor will announce any deviations from the syllabus or schedule in class.

Assignments

Programming and application development assignments constitute a significant aspect of your skill development in this course. Students are required to complete each assignment.

All projects must be completed by you and outside of class. They are due at 11:59 pm on the assigned due date unless otherwise announced. Projects submitted after their due dates may be accepted with penalty based on valid reasons and documented cause, following discussion with the instructor. If no valid reason or documentation is provided, late projects will have a **10%-point deduction/day**. Late projects will be accepted up to 4 business days after the due date only.

Participation

Students are expected to regularly discuss their progress in the course and participate in discussions using WebEx and the topic/assignment specific discussion boards on Canvas.

Exams

We will have a mid-term and a final exam. We will go over more information about the exams as the semester progresses.

Grading

Course grades will be based on the following:

> *Please note:*
> Questions concerning the grading of an exam or project must be resolved within a reasonable time (typically one week) after the grade has been posted in Canvas. After that period, all grades are final.

Item	Percent
Participation	5%
Midterm Exam	25%
Final Exam	35%
Projects	35%
Total	**100%**

The following grading scale will be applied to calculate your final letter grade based on the total grades you earn.

Grade	A	A-	B+	B	B-	C+	C	F
Percentage	93-100%	90-92%	87-89%	83-86%	80-82%	77-79%	70-76%	< 70%

Extra credits

There are several options to earn extra credits through projects. Later this semester, I will describe each project with the associated extra credits.

Make-up Exam Policy

It is to your advantage to take all exams at the scheduled times. Only in the case of a well-documented true emergency should an exam be missed. Please be sure to get your instructor's *prior* approval for all but emergency cases. Exams missed without the prior approval of your instructor or without adequate documentation of the reason for missing the exam will result in a recorded grade of zero for the missed exam.

Grading Impact of Possible Class Disruptions

This section is about the impact of possible disruptions on your course grade. Rather than waiting for disruptions to happen, and then having to inform you how those are going to affect your grade, we want to tell you in advance how your course grade may be affected by possible disruptions. For example, what would happen if we have too many disruptions so we cannot complete all course assignments? What if we must cancel the project?

If any course individual projects, and exams are cancelled (either by the instructor or the university), the course grade will be based on the exams, and projects that have been completed in the course. The percentage cut-offs listed in the course syllabus will change.

Attendance Policy

ISM672 will meet on Monday evenings from 5:30 to 7 pm beginning the week of August 17. It is the student's responsibility to attend class online and to participate in class discussions. It is the student's responsibility to stay on track with readings and assignments to be successful in the course.

Because this is an interactive class, learning depends on attendance. Online attendance at all class meetings is expected. Information about upcoming assignments, including changes in deadlines and submission dates, may be discussed in class. If you must miss a class, you are responsible for finding out about assignments announced that day. Having missed a class will never be accepted as an excuse for missing a course requirement.

Canvas

Check your Canvas course regularly. Email updates and new information is added to Canvas on a regular basis. You will be responsible for any information or announcements provided to you through email and for any updates on Canvas.

e-Mail

- Always include a subject line.
- Remember without facial expressions some comments may not be interpreted accurately. Take care to word your emails. Use of emoticons might be helpful in some cases.
- Use standard fonts.
- Do not send large attachments without permission.
- Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless necessary to complete an assignment or other communication.
- Respect the privacy of other class members

Netiquette

The same guidelines that apply to traditional classes should be observed in the virtual classroom environment. Please use proper netiquette when interacting with class members and the professor.

Policy on Server Unavailability or Other Technical Difficulties

The university is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows.

What you need to take this course

1. Textbooks, Visual Studio with SQL Server.
2. You must have access to a computer that connects to the Internet. The course materials are only accessible online by logging in to canvas.uncg.edu – your student identification number is required. If you do not own a computer, the computer labs on campus will be open during this semester.
3. You must have a working e-mail account. Please, make sure your e-mail address on the course Web site is up to date.
4. Because of e-mail viruses, you must use the subject ISM 672 and your full name typed in the message, or the e-mail may be ignored.
5. If you have questions, please do not respond to a Canvas Announcement, rather send me a direct email.
6. You must check your e-mail account regularly throughout the semester. Official announcements will be made by e-mail, and on the course Web site at canvas.uncg.edu.
7. You are responsible for saving all assignments correctly, so you can turn them in electronically. You should be comfortable using word processing software, programming software and have reasonable keyboarding skills. No assignments will be accepted in handwritten form.
8. Supplies: Although you will be publishing (uploading) your assignments, it is a good idea to keep copies of everything.

Academic Integrity Policies

Students in the Bryan School must conform to all existing principles found in UNCG's Academic Integrity Policy and the Student Code of Conduct. Further details may be found at the following site: http://sa.uncg.edu/handbook/. If you have questions about how these policies apply to this course or an assignment, then please see me.

Accommodations for Students with Disabilities

Students are responsible for requesting accommodations from the Office of Accessibility Resources & Services (OARS), *according to their procedures and policies*. The student is to provide a written request for *each test* accommodation to their instructor (an e-mail will suffice provided you have received a reply from the instructor). Both *the requests to the* OARS *and to the instructor* are to be made at least ten school days before the test date.

Expectations of Faculty and Students in the Bryan School

Students should read the Guidelines for Faculty and Students presented on the web pages found at: http://bryan.uncg.edu/wp-content/uploads/2012/08/faculty_student_guidelines.pdf

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COURSE SCHEDULE

Week	Date	Class Topics	Readings
1	8/17-21	Part I – Console Applications (No Virtual Meeting) • Part I-1-1 IDE Download and Installation, 1st Console Application and 1st Desktop Application • Part I-1-2 Basic of Programming (Variables)	Perkins et al. 2018 – Chapters 2 and 3
2	8/24-28	Part I – Console Applications • Part I-2 Basic of Programming (Flow Control, Advanced Variables, Functions, Debugging and Error)	Perkins et al. 2018 – Chapters 4 to 7
3	8/31-9/4	Part I – Console Applications • Part I-3 Object Oriented Programming (Classes, Classes Members, Objects, Collections, Comparison, Conversion, Events Handler)	Perkins et al. 2018 – Chapters 8 to 11, and 13
4	9/7-11	Part II – Desktop Applications (No Virtual Meeting) • Part II-1 Windows Forms Applications **Project 1 (Due 9/14)**	Johnson 2018 - Part IV – 13
5	9/14-18	Part II – Desktop Applications • Part II-2 Windows Presentation Foundation (WPF) • Part II-3 Universal Windows Platform Apps	Perkins et al. 2018 – Chapter 14 Johnson 2018 - Part IV – 14, 15
6	9/21-25	Part III – Database and LINQ • Part III-1 Navigate Database Files (Server Explorer, Data Controls, Data-Bound Components, ADO.NET)	Perkins et al. 2018 – Chapter 22 Taher 2019 – Exploring ADO.NET with Examples Troelsen 2017 – Chapters 21 Johnson 2018 - Part VIII – 26
7	9/28-10/2	Part III – Database and LINQ • Part III-2 Entity Framework (ADO.NET Entity Framework) and CRUD Operations	Perkins et al. 2018 – Chapter 23 Taher 2019 – Exploring ADO.NET with Examples

			Sharp – Chapters 21 (Advanced Queries) Troelsen 2017 – Chapters 22 Johnson 2018 - Part VIII – 27
8	10/5-9	**Midterm Exam**	
9	10/12-16	Part IV – Web Applications • Part IV-1 ASP.NET Web Site and Web Application (HTML, CSS, Web Controls, JavaScript, AJAX) **Project 2 (Due 10/19)**	Perkins et al. 2018 – Chapter 19 Johnson 2018 - Part V – 16
10	10/19-23	Part IV – Web Applications • Part IV-2 ASP.NET MVC (LINQ-to-SQL Model, Controllers and Actions Methods, Scaffolding, UI Rendering)	Perkins et al. 2018 – Chapter 19 Johnson 2018 - Part V –17 Troelsen 2017 – Chapter 29
11	10/26-30	Part IV – Web Applications • Part IV-3-1 ASP.NET Web API (HTTPDELETE, HTTPPOST, HTTPPUT) • Part IV-3-2 Extend ASP.NET MVC with ASP.NET Web API	Perkins et al. 2018 – Chapter 19 Troelsen 2017 – Chapter 30
12	11/2-6	Part IV – Mobile Applications • XAMARIN on iOS and Android	Johnson 2018 - Part VI – 21 Troelsen 2017 - Chapter 28
13	11/9-13	Open Day **Project 3 (Due 11/16)**	
14	11/16-20	Reading Day (Last Day of Classes)	
16	11/30-12/4	**Final Exam**	

Disclaimer: Please note that this schedule is **tentative,** and **changes** will be made to it as deemed necessary.

REFERENCES

Taher, R (2019). Hand-on Object-Oriented Programming with C# by Packt Publishing. Available at: https://uncg.on.worldcat.org/oclc/1097572727

Sharp, J. (2018). Microsoft visual c# step by step (Ninth ed., Step-by-step) Pearson Education. (2018). Available at: https://uncg.on.worldcat.org/oclc/1045428992

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