Course Information

Instructor: Martijn van Hasselt
E-mail: mnvanhas@uncg.edu
Office hours: Wed, Thu, 1:00pm – 2:00pm via Zoom
Class time: Mon, 4:30pm – 5:45pm (Section 01A)
            Wed, 4:30pm – 5:45pm (Section 01B)
Class location: Bryan 104

Course Description

This is an intermediate statistics course for students in the Bryan School. It covers testing for differences between two populations, inference about variances, experimental design, and simple and multiple linear regression. Throughout the semester, you will use Microsoft Excel for statistical calculations and analysis. You are expected to be familiar with the material covered in ECO250 (Economic and Business Statistics I), as well as basic algebra, equations and inequalities, linear functions, and graphs.

This course is offered in a hybrid format. Each section meets once a week at the scheduled time and location listed above. The on-campus meeting time will be used to discuss the material, work through examples, and address any questions and problems that may arise.

Note: The on-campus meetings on Mondays (Section 01A) and Wednesdays (Section 01B) cover the same material. If you have been assigned to Section 01A, you do not need to attend online meetings on Wednesdays. Similarly, if you have been assigned to Section 01B, you do not need to attend online meetings on Mondays.

Learning Objectives

By the end of the course, you will be able to

- Describe and explain statistical methods to compare two populations.
- Describe and explain randomization and experimental study design, and their value for solving problems in business and economics.
- Describe and explain the use of bivariate and multiple regression techniques in business and economics.
- Apply confidence intervals, hypothesis testing, analysis of variance and least squares estimation to empirical problems in business and economics.
- Interpret the results from the aforementioned statistical methods and techniques.
Use Microsoft Excel as a tool for implementing the aforementioned statistical methods.

Course Materials

All students are required to purchase access to MindTap, Cengage’s online learning platform that will be used for homework assignments. You should choose one of the following options:

1. Digital-only option: MindTap Business Statistics, 1 term (6 months) printed access card for *Essentials of Modern Business Statistics with Microsoft Excel* (8th ed.) by Anderson et al. This includes access to an online-only digital copy of the textbook.

2. Bundle option: MindTap printed access card + loose-leaf textbook version of *Essentials of Modern Business Statistics with Microsoft Excel* (8th ed.).

3. Cengage Unlimited subscription: this gives you unlimited access to multiple MindTap courses for a period of 4 months, 1 year or 2 years.

Options #1 and #2 are available at the UNCG Bookstore and, at a discounted price, from Cengage directly. To purchase from Cengage directly with a credit card, you can follow the direct-purchase link provided in Canvas. If you are (or will be) taking multiple courses that use Cengage products, option #3 is the most cost-effective option. Subscriptions can be purchased from Cengage by following the direct-purchase link in Canvas.

The first time you try to access a MindTap link through Canvas, you will be prompted to enter your access card number. Please note that you should use the access code by navigating through Canvas, instead of using it on the Cengage website. This will ensure that the MindTap materials will be properly linked to Canvas.

You are welcome to purchase a hard copy of the textbook from a different retailer, such as Amazon. However, please make sure you buy the MindTap access code either from the UNCG bookstore or via the direct-purchase link on Canvas. This will ensure that your access to MindTap is compatible with Canvas.

Grading

Your course grade is based on the following components and weights.

- MindTap homework assignments: 30%
- Canvas quizzes: 10%
- Participation in Canvas discussions: 10%
- Midterm exam: 20%
- Final exam: 30%
Your letter grade will be assigned based on the following scale.

- 93% and above: A
- At least 90% but less than 93%: A-
- At least 87% but less than 90%: B+
- At least 83% but less than 87%: B
- At least 80% but less than 83%: B-
- At least 77% but less than 80%: C+
- At least 73% but less than 77%: C
- At least 70% but less than 73%: C-
- At least 67% but less than 70%: D+
- At least 63% but less than 67%: D
- At least 60% but less than 63%: D-
- Less than 60%: F

Note: Toward the end of the semester I will decide whether or not to apply a curve. Grades will not be rounded up. For example, a score of 89.99% is a B+. Once your course grade has been determined, it will be final. Make-up credit opportunities or extra-credit assignments will not be available.

**Homework Assignments**

Homework assignments will be due approximately every week. They consist of a mix of theory and calculation-based questions, and applications and activities in Microsoft Excel. Your overall score on the assignments counts for 30% of your course grade. You will work on the assignments in MindTap, which can be accessed through Canvas. The due date for each assignment will be clearly marked in Canvas and MindTap. I will not accept late submissions under any circumstance. I also do not give make-up opportunities. When working on the assignments, plan your time accordingly and do not wait until the last minute.

**Canvas Quizzes**

Throughout the semester, you will complete a number of short quizzes in Canvas. The quizzes count for 10% of your overall course grade. They are meant to ensure that you keep up with the course readings and come to class prepared. The quizzes are due by 11:59 pm the night before your in-person class meeting. Due dates will be clearly marked in Canvas. I will not accept late submissions under any circumstance. I also do not give make-up opportunities. When working on the assignments, plan your time accordingly and do not wait until the last minute.

**Canvas Discussions**

The course is divided into 5 instructional units that cover distinct topics. Each unit will have its own Canvas discussion board. Your participation in these discussions counts for 10% of your overall course grade. For each discussion board, participation consists
of posting at least once and replying at least once by the stated due dates. The due
dates will be clearly marked in Canvas.

The discussion boards are meant to promote thoughtful discussion of the course
material outside of the classroom. They also give you a further opportunity to interact
and engage with your classmates. Posts and replies to the discussion need to be
substantive and specific to receive credit. For example, a post like “I don’t
understand…” is not specific enough. A reply like “I agree” or “I disagree” is not
substantive enough.

I will monitor and moderate the discussion boards, but you should feel free to jump in
any time if you have questions or answers, or if you want to discuss applications and
examples. The only other requirements, beyond observing due dates and making sure
your posts and replies are specific and substantive, is that your contributions are
relevant to the topic at hand and respectful to others.

Exams
This course has a midterm exam and a cumulative final exam. You will take both exams
online in Canvas. Exam dates and times for each section are listed in the table below.
You can start the exam at any point within the given time window. Once you start, you
will have 75 minutes to complete the midterm exam and 180 minutes to complete the
final exam. The exams have to be completed in a single sitting: you cannot save your
work and return to it later. The exam dates are also listed on Canvas. Please mark them
in your calendar immediately.

If there are extreme circumstances that prevent you from taking an exam, you need to
notify me prior to the exam and provide documented evidence. If I do not receive prior
notification, then not taking the exam will result in a score of zero.

<table>
<thead>
<tr>
<th>Section</th>
<th>Exam</th>
<th>Time Limit</th>
<th>Date &amp; Time Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>01A</td>
<td>Midterm</td>
<td>75 minutes</td>
<td>Wednesday, October 14, 8:00am – 11:59pm</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>180 minutes</td>
<td>Friday, December 4, 8:00am – 11:59pm</td>
</tr>
<tr>
<td>01B</td>
<td>Midterm</td>
<td>75 minutes</td>
<td>Friday, October 9, 8:00am – 11:59pm</td>
</tr>
<tr>
<td></td>
<td>Final</td>
<td>180 minutes</td>
<td>Friday, December 4, 8:00am – 11:59pm</td>
</tr>
</tbody>
</table>

Office Hours and Meetings
I will hold open office hours via Zoom on Wednesday and Thursday, 1:00pm – 2:00pm.
To join a Zoom meeting, follow these steps:

1. Log into Canvas.
2. Navigate to ECO350.
3. Click on the Zoom link in the navigation menu on the left-hand side of the screen.
4. You will see a list of scheduled office hour meetings. Click on the “Join” button for
   the meeting scheduled for that day.
5. When prompted by Zoom, enable your device’s audio and video. If I am in a discussion with another student when you join, you will first be placed in a Zoom waiting room. As soon as I am able to help you, you will be admitted to the main Zoom meeting room.

I recommend using a laptop when joining a Zoom meeting. If you are new to Zoom and would like to have additional information and helpful resources, check out the following links.

- **Zoom@UNCG**: instructions for using Zoom at UNCG (in this course, your access is via Canvas).
- **Zoom Help Center**: QuickStart guides and video tutorials.

Due to COVID-19, I will not be holding in-person office hours in my Bryan School office. Unfortunately, I can also not accommodate unannounced, drop-in visits. If you nonetheless would like to meet with me in person, contact me to set up an appointment, so that I can arrange an appropriate meeting space.

**Course Expectations**

**Expectations for students:**

- Do not talk to your neighbors during class. It distracts the students around you, and it distracts me.
- Please be on time and remain in class until class is dismissed. Arriving late or leaving too early is disruptive both to me and your classmates.
- You may use a laptop in class only to take notes or to access course-related materials. Refrain from using social media and surfing the web.
- While in class, turn off and stow away your phone.
- When you begin to feel lost, be proactive! I am more than happy to answer questions during class and during office hours.
- Outside of the classroom, you will most likely need at least 5-6 hours each week for reviewing course material and completing assignments. If this is not feasible for you given your other time commitments, perhaps this is not the class for you.
- Make sure that your Canvas account settings are such that you receive notifications about new announcements and discussion posts.
- Make sure you regularly check for [COVID-19 updates from UNCG](https://www.uncg.edu/covid-19/).
- Familiarize yourself with the [COVID-19 FAQs](https://www.uncg.edu/covid-19/FAQs) document I have created for this course.

**Expectations for the instructor:**

- You will have opportunities in the classroom to ask questions about the course material. I will also be available during office hours (via Zoom) to address any concerns you may have.
If you are experiencing any issues that are not directly related to the course, I will do my best to refer you to other resources on campus.

I will communicate with the class via Canvas. For this purpose, I will use Canvas announcements and discussion boards.

Canvas will be the central hub for this course. I will maintain the Canvas site and keep it as up to date as possible.

I will respond to emails and questions on discussion boards by 5:00pm the next business day. In many cases, my response time may be much quicker, but this gives you an idea when to expect an answer at the latest. For example, if you contact me at 7:00pm on a Monday evening, you will receive a response no later than 5:00pm on Tuesday. If you contact me on a Friday or over the weekend, you will receive a response no later than 5:00pm the following Monday.

**Academic Integrity Policy**

Please review UNCG’s Academic Integrity Policy before the start of the semester. You are expected to know this policy and abide by it in all matters pertaining to this course. Note that course materials are for your personal use only. They may not be shared or posted on the internet, since this would violate UNCG copyright policies and U.S. copyright law. If I suspect that a violation of the policy has occurred, I will follow the sanctions procedure as outlined in Section IV of the policy.

**Faculty and Student Guidelines**

Please familiarize yourself with the Bryan School’s Faculty and Student Guidelines. These guidelines establish principles and expectations for the administration, faculty, staff, and students in the Bryan School of Business and Economics.

**Academic Accommodations**

The University of North Carolina at Greensboro respects and welcomes students of all backgrounds and abilities. If you feel you will encounter any barriers to full participation in this course due to the impact of a disability, please contact the Office of Accessibility Resources & Services (OARS). The OARS staff can meet with you to discuss the barriers you are experiencing and explain the eligibility process for establishing academic accommodations. You can learn more about OARS by visiting their website at ods.uncg.edu, by calling 336-334-544 or by visiting Suite 215 in the EUC.
UNCG Statement Regarding COVID-19

As UNCG returns to face-to-face course offerings in fall 2020, the campus community must recognize and address concerns about physical and emotional safety. As such, all students, faculty, and staff are required to uphold UNCG’s culture of care by actively engaging in behaviors that limit the spread of COVID-19. Such actions include, but are not limited to, the following:

- Wearing a face covering that covers both nose and mouth
- Observing social distance in the classroom
- Engaging in proper hand washing hygiene when possible
- Self-monitoring for symptoms of COVID-19
- Staying home if you are ill
- Complying with directions from health care providers or public health officials to quarantine or isolate if ill or exposed to someone who is ill.

Instructors will have seating charts for their classes. These are important for maintaining appropriate social distance during class and facilitating contact tracing should there be a confirmed case of COVID-19. Students must sit in their assigned seat at every class meeting and must not move furniture. Students should not eat or drink during class time.

A limited number of disposable masks will be available in classrooms for students who have forgotten theirs. Face coverings will also be available for purchase in the UNCG Campus Bookstore. Students who do not follow masking and social distancing requirements will be asked to put on a face covering or leave the classroom to retrieve one and only return when they follow these basic requirements to uphold standards of safety and care for the UNCG community. Once students have a face covering, they are permitted to re-enter a class already in progress. Repeated issues may result in conduct action. The course policies regarding attendance and academics remain in effect for partial or full absence from class due to lack of adherence with face covering and social distancing requirements.

For instances where the Office of Accessibility Resources and Services (OARS) has granted accommodations regarding wearing face coverings, students should contact their instructors to develop appropriate alternatives to class participation and/or activities as needed. Instructors or the student may also contact OARS (336.334.5440) who, in consultation with Student Health Services, will review requests for accommodations.

Health and well-being impact learning and academic success. Throughout your time in the university, you may experience a range of concerns that can cause barriers to your academic success. These might include illnesses, strained relationships, anxiety, high levels of stress, alcohol or drug problems, feeling down, or loss of motivation. Student Health Services and The Counseling Center can help with these or other issues you may experience. You can learn about the free, confidential mental health services
available on campus by calling 336-334-5874, visiting the website at https://shs.uncg.edu or visiting the Anna M. Gove Student Health Center at 107 Gray Drive. For undergraduate or graduate students in recovery from alcohol and other drug addiction, The Spartan Recovery Program (SRP) offers recovery support services. You can learn more about recovery and recovery support services by visiting https://shs.uncg.edu/srp or reaching out to recovery@uncg.edu

COVID-19 Spartan Shield Video

UNCG Chancellor Frank Gilliam has challenged us to create a Culture of Care at UNCG where we all wear face coverings and social distance, less to protect ourselves but rather more to protect everyone around us. It shows that you care about the wellbeing of everyone around you. We have created this video featuring your student body presidents to better explain how and why this is so important. Please watch this video before the first day of classes: https://youtu.be/Mb58551qxEk