Course Syllabus

Applied Statistics
ECON 3339-004

Dr. Hannah Wich
Department of Economics and Finance
Nelson Rusche College of Business
Lectures: T/TR 12:30-1:45 om
Office Hours: T/TR 2:00-5:00 pm
F 8:00-12:00 pm (online)
Or by appointment

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Location: McGee Bus. Bldg. 324

Course Description and Objectives
This course will focus on the fundamental and most important concepts of probability and statistics that can be applied to solve real-world problems. The main aim of this course is to provide students with the essential foundation in these topics and the tools necessary to apply them outside of the classroom. We will be using MS Excel to develop these tools.

Course pre-requisites: MATH 1342 (previously MTH 220) and MGMT 2372 (previously MGT 272)/or 6 hours of Computer Science.

Learning Objectives:
Students successfully completing this course should be able to:
1. Use quantitative, abstract, and logical reasoning
2. Obtain basic knowledge in mathematics and statistics
3. Acquire skills in the use of contemporary information resources and technology
4. Utilize analytical thinking, critical analysis, logic, creativity, and integrative problem solving
5. Work with descriptive statistics in a sampling situation
6. Perform a variety of statistical tests and make inferences
7. Compute and interpret regression equations using raw data
8. Use standard tables for the normal distribution, F-distribution, and chi-square distribution

Course Materials:
The course Note Packet (around $20) is required and is only available at the SFA Barnes & Noble and at Jack Backers.

You will need access to Excel 2016 on a PC. There are machines available in the Business Building. You will also need access to a reliable internet connection. Spotty internet access may result in you losing credit for timed assignments and exams. SFA students have FREE access to Microsoft Office 2016 through Office 365: http://www.sfasu.edu/mysfa/o365/.

Use Chrome as your browser and do not use a VPN or other type of IP address cloaking software.

I do not recommend using a Mac for this course.
The primary text is *Statistics for Managers Using Microsoft Excel (9th Edition)* by Levine, Stephan, and Szabat. It is published by Pearson (ISBN-13: 9780135970232). We will use Excel in conjunction with the text. Students are expected to have some basic level of working knowledge in Excel.

Our textbook comes with MyStatLab. **You will need access to MyStatLab to pass the course.** I recommend buying access to MyStatLab, which comes with an e-text version of the book, through the Pearson website (around $120) or at the University bookstore. Purchasing from Pearson through the D2L link is the safest and cheapest option.

**To register for the MyStatLab Course/E-Book Access:**
1. There is no course ID.
2. In our D2L course, click on the Pearson link on the lower right of the home page.
3. Make sure that you **allow pop-ups from Pearson**. You will see a button on the right-hand side of the URL address bar.
4. Follow the prompts to register.
5. Enter your existing Pearson account **username** and **password** to **sign in**.
   - You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics.
   - If you do not have an account, select “Create” and complete the required fields.
6. Select an access option.
   - Buy access through Pearson using a credit card or PayPal account (**recommended**).
   - Temporary access is available by selecting the link near the bottom of the page.
     - To update before the deadline, select “Upgrade Access”.
     - Enter an access code or buy access with a credit card or PayPal account.
   - Enter the access code that came with your textbook or was purchased separately from the bookstore.

**To sign in later:**
1. In our D2L course, click on the Pearson link on the lower right of the home page.

**Grading**
Your final grade for the course is based on the scale below.
A: 90% and above, B: 80%-89%, C: 70%-79%, D: 60%-69%, F: Less than 60%

<table>
<thead>
<tr>
<th>Task</th>
<th>% of Class Grade</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>5%</td>
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<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Exam 1</td>
<td>25%</td>
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<tr>
<td>Exam 2</td>
<td>25%</td>
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<tr>
<td>Exam 3</td>
<td>25%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Exams
All exams are administered in MyStatLab and will be taken **in class**. Tentative dates for each regular exam are the following:

Exam 1 – Thursday, February 13th (Chapter 1, 2, 3 and 6)
Exam 2 – Tuesday, March 26th (Chapter 7 and 9)
Exam 3 – Thursday, May 2nd (Chapter 13 and 14)

Any use of the resources **not listed below** is cheating.

- The internet can **only be used to access the exam**.
- **You must not pause or exit the exam once you have begun.**
- **You are encouraged to use the Excel templates** that we build in class **on all exams**.
- **Note-Sheets:** You are permitted a note-sheet during the exam.
  - It must be the size of a standard sheet of paper or smaller.
  - Building these note-sheets is a great study exercise.
- Calculators and blank scratch paper are allowed.

There is **NO required** final exam for this course. **However, a cumulative final exam is offered and can replace one of your regular exam scores.** The final exam will be held according to the official schedule on **Thursday, May 9th** from 10:30-12:30 pm and will be taken in our regular classroom. The same resources listed for Exams 1-3 are permitted for the final.

Those with university excused absences on these dates will be offered an alternative exam time. The student is required to inform the instructor two weeks before the exam date!

Makeups for non-university excused absences are at the discretion of the instructor. A cumulative final exam is offered and can replace one of your missed exams.

Homework
All homework assignments are administered in MyStatLab. Completing homework assignments is vital to learning the material. These assignments provide feedback to you about your personal level of understanding as well as feedback to me about the overall level of understanding in the class. Students may work together on homework assignments, and I encourage you to do so. **However, make sure you are doing your own work. It will matter come test time.** No late homework assignments will be accepted. The two lowest homework grades will be dropped.

Class Participation
All quizzes will be administered in D2L. There will be a quiz at the end of each chapter. Your average on these quizzes will determine your class participation grade. The lowest quiz grade will be dropped.
Keys to Success/Points of Emphasis:
In my experience, there are three keys to success in this course: (1) Come to class every day and take notes in addition to those provided, (2) do problems and then do more problems like the ones you struggled with, and (3) seek help/use additional resources when needed.

Note: the main purpose of this class is to learn and understand methods of applied statistics that will be useful and (I hope) interesting to you. Please make sure to utilize my office hours or make an appointment when you need it. You can ask questions about homework or ask for a more customized presentation of any part of the week’s lectures or ask any supplementary questions that you might have.

Additional Help: Walk-In Table at the AARC (located in the library)
- Mondays: 5-7 pm
- Tuesdays and Thursdays: 5-7 pm
- Wednesdays: 5-6 pm

Email Correspondence
Email is the preferred method of correspondence. When emailing, please be sure to identify the nature of your question. Also, I am expecting you to properly address me in an email and every email should have a subject. I will do my best to respond within 24 hours of receiving your email. DO NOT SEND ME EMAILS ON D2L!

Tentative Topic Outline

<table>
<thead>
<tr>
<th>Topics</th>
<th>Readings</th>
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<tbody>
<tr>
<td>Ch. 1 Foundational Knowledge</td>
<td>All</td>
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<tr>
<td>Ch. 2 Organizing and Visualizing Variables</td>
<td>All</td>
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<tr>
<td>Ch. 3 Numerical Descriptive Measures</td>
<td>3.1, 3.2, 3.4, 3.5, 3.6</td>
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<td>Ch. 6 The Normal Distribution</td>
<td>6.1, 6.2, 6.6</td>
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<tr>
<td>Ch. 7 Sampling Distributions</td>
<td>All</td>
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<td>Ch. 9 Hypothesis Tests</td>
<td>9.1, 9.2, 9.3, 9.4, 9.5</td>
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<tr>
<td>Ch.13 Simple Linear Regression</td>
<td>13.1, 13.2, 13.3, 13.4, 13.5, 13.7, 13.9</td>
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<tr>
<td>Ch. 14 Multiple Regression</td>
<td>14.1, 14.2, 14.3, 14.4, 14.5, 14.6</td>
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Additional topics if time permits

Topics 1-14 are the core of the course: every effort will be made to cover them in class.

Expectations on classroom decorum
Common courtesy and standards of professional conduct require that you remain attentive for the entire class period, and refrain from any disruptive behavior. Behaviors that are distracting—reading a newspaper, ringing of phones, nonacademic use of laptops, texting — are destructive to the teaching/learning process and therefore should not occur.
Student Syllabus Resources
Direct students to this URL for additional policies and information: https://www.sfasu.edu/student-syllabus-resource

Information on the following is available at Student Syllabus Resources:
• Institution Absences (HOP 04-110)
• Academic Integrity (HOP 04-106)
• Withheld Grades Semester Grades Policy (HOP policy 02-206)
• Students with Disabilities and Disability Services
• Student Wellness and Well-Being
• Additional Campus Resources
• Crisis Resources

Disclaimer:
I reserve the right to make changes and amendments to this syllabus through classroom and D2L announcements during the semester.