ECON 3339: Applied Statistics
Fall 2021
Section: ECON 3339 – 003
Time: MW 2:30pm – 3:45pm
Location: McGee Business 324
Office Hours: MW: 10:00am – 12:00nn
TR: 1:00pm – 4:00pm

Office hours will be done either in-person or online. If you wish to meet online, please click on the Zoom link below. I have enabled the “waiting room” option, which means that you might have to wait a few minutes if I am talking with another student first before I let you into the Zoom meeting.

Zoom Link: https://sfasu.zoom.us/j/93920052884?pwd=czhjZ0lUWkNnd2JnTlRKMWh6dEptZz09
Meeting ID: 939 2005 2884
Password: 301934

If you wish to meet outside these hours, please email me to schedule an appointment. Be sure to provide several possible meeting times to work with your schedule. Please be ready with specific questions before coming to office hours.

Catalog Description: The application of statistical quantitative methods.
Prerequisites: MTH 220; 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:

- ECON 3339 Course Note Packet - available only at SFA Barnes & Noble and Jack Backers
- MyStatLab Access
  - All of your homework assignments and exams will be conducted through MyStatLab.
  - MyStatLab is comes with an electronic copy of our required textbook.
  - I highly recommend that you purchase the book through the Pearson website (via our D2L link) or the University bookstores. A loose-leaf hardcopy is an $80 upgrade.
- Microsoft Excel software on a PC.
  - SFA students have free access to Microsoft Office 2016 through Office 365: http://www.sfasu.edu/mysfa/o365/
I will be instructing the course using a Microsoft Windows PC, so I do not recommend using a Mac for this course. However, you can use a Mac, however, please be aware of the discrepancies between a PC and Mac. You will be responsible for the differences between a PC and Mac.

- Google Chrome browser.
  - Using other browsers may result in technical glitches and difficulties.
- Reliable Internet connection
  - Spotty internet access may result in you losing credit for timed assignments and exams.
  - Do not use a VPN or other type of IP address cloaking software to avoid any technical difficulties.

To register for the MyStatLab Course/E-Book Access:

- In our D2L course, click on the Pearson link on the lower right hand of the home page.
  - There is no course ID needed.
- Use the Google Chrome browser.
- Make sure that you allow pop-ups from Pearson.
  - To allow pop-ups from a specific site:
    - Click on the (Pop-up blocked) button located at the right hand side of the URL address bar.
    - Click the link for the pop-up you want to see.
    - To always see pop-ups for the site, select "Always allow pop-ups and redirects from [site]" then click Done.
  - For more information: [https://support.google.com/chrome/answer/95472?co=GENIE.Platform%3DDesktop&hl=en](https://support.google.com/chrome/answer/95472?co=GENIE.Platform%3DDesktop&hl=en)
- Follow the Pearson/MyStatLab prompts to register.
- Enter you Pearson account username and password.
  - You have a Pearson account if you have ever used a Pearson MyLab & Mastering products (such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology, MasteringPhysics, etc).
  - If you do not have an account, select "Create" and complete the required fields.
- Select an access option.
  - Purchase access through Pearson using a credit card or PayPal account.
  - Temporary access is available by selecting the link near the bottom of the page.
    - To upgrade access before temporary access ends, select "Upgrade Access"
    - Enter an access code or purchase access with a credit card or PayPal account.
  - If you purchased a hard copy of the textbook or a MyStatLab access code from the bookstore:
    - Enter that access code that came with your purchase.

Grades: Your course grade is weighted as follows:

- **Exam 1** – 20%
- **Exam 2** – 20%
- **Exam 3** – 20%
- **Project** – 20%
- **Homework** – 20%
- **Final Exam (cumulative)** – 0% (optional but can replace your lowest exam grade)

Grading scale: At the end of the semester, you will have weighted scores adding up to a possible 100 percentage points (not including extra credit). Your final letter grade for this course will be based on the following scale:

- **A**: 90% and above; **B**: 80% - 89%; **C**: 70% - 79%; **D**: 60% - 69%; **F**: Less than 60%
Homework (MyStatLab): Homework assignments are worth 20% of your overall course grade and are completed through MyStatLab. Each assignment typically becomes available on Thursdays at 8am and due 12 days after, on Tuesdays at 11pm. Completing the assignments is vital to learning the material. These assignments provide feedback about your level of understanding of the course material. Late homework assignment submissions will not be accepted.

Exams: Each exam is worth 20% of your overall course grade. All exams will be proctored in class during the scheduled class time. Missing an exam without a documented excuse will receive a zero for the exam. If you miss an exam for an unforeseen reason, you should contact me as soon as you are physically able to. When taking 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 one (1) note-sheet during the exam.
  - It must be the size of a standard sheet of paper or smaller. It can two-sided. It must be handwritten. Building these note-sheets is a great study exercise.
- You may use simple (non-graphing) calculators.
- I will provide blank scratch paper upon request.
- You are not allowed to use any other materials that is not listed above.

The Final Exam is cumulative, and it is scheduled for Friday, December 6th, 8:00am to 10:00am. Taking the final exam is optional, but it can replace your lowest exam grade. You are permitted to use your templates from class and one (1) two-sided note-sheet (standard paper size) for the final. The note-sheet must be handwritten. There will be no make-up exams for the final exam.

Project: The project is worth 20% of your overall course grade. It will be completed in groups of 3 – 5 persons. Each group will be assigned a packet that includes the main question and an Excel spreadsheet. The goal of the project is to answer the assigned question using the data provided. The group project (and grade) is detailed as follows:

Part 1 – Data Visualization: The first part is worth 35% of the project grade (due on Friday, October 8th at 11pm). It will require the application of data organization and visualization techniques in analyzing data patterns.
Part 2 – Regressions: The second part is worth 50% of project grade (due on Friday, December 3rd at 11pm). It will require the application and knowledge of running linear regression in answering the assigned question.
Part 3 – Peer Evaluation: The third part is worth 15% of project grade (due on Friday, December 3rd at 11pm). Peer evaluations are based on a scale of 0-10. The average score on the peer evaluations determines whether an individual earns the full 15% or a portion of that amount. For example, if an individual receives an average score of 5 on the peer evaluations, they will only earn 7.5% instead of 15%.

Course Expectations:
- Consistently watching the online videos and complete homework assignments is essential for this course.
- If you are having trouble keeping up with the Excel work, keep practicing with exercises in the course packet and reviewing past assignments.
- If you have a question, please do not hesitate to reach out to me.
- Read the note-packet frequently after filling it out.
- Improve the course: if you know of a way to make the course better, please share your ideas with me.
Course Outline

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Chapter Title</th>
<th>Reading Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>Foundational Knowledge</td>
<td>All</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>Organizing and Visualizing Variables</td>
<td>All</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Numerical Descriptive Measures</td>
<td>3.1, 3.2, 3.4, 3.5, 3.6</td>
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<td>Chapter 6</td>
<td>The Normal Distribution</td>
<td>6.1, 6.2, 6.6</td>
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<tr>
<td>Chapter 7</td>
<td>Sampling Distributions</td>
<td>All</td>
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<tr>
<td>Chapter 9</td>
<td>Hypothesis Testing</td>
<td>9.1, 9.2, 9.3, 9.4, 9.5</td>
</tr>
<tr>
<td>Chapter 14</td>
<td>Multiple Regression</td>
<td>14.1, 14.2, 14.3, 14.4, 14.5, 14.6</td>
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</tbody>
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Tentative Schedule

Please keep an eye on the MyStatLab schedule and watch out for D2L and in-class announcements. *I may need to make adjustments throughout the semester.*

**Project and Exam Dates:**
- Exam 1 – Wednesday, September 22nd
  - *Exam 1 prep becomes available on Tuesday, Sept. 14th until Tuesday, Sept 21st.*
- Project: Part 1 – Friday, October 8th at 11:00pm
- Exam 2 – Wednesday, October 20th
  - *Exam 2 prep becomes available on Tuesday, Oct. 12th until Tuesday, Oct. 19th.*
- Exam 3 – Wednesday, December 1st
  - *Exam 3 prep become available on Tuesday, Nov. 16th until Tuesday, Nov. 30th.*
- Project: Part 2 – Friday, December 3rd at 11:00pm
- Project: Peer Evaluations – Friday, December 3rd at 11:00pm
- Final Exam (optional) – Friday, December 10th, 8:00am – 10:00am.

**Homework Assignment Schedule**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Open (Thursdays at 8:00am)</th>
<th>Close (Tuesdays at 11:00pm)</th>
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<tbody>
<tr>
<td>Orientation</td>
<td>08/19</td>
<td>08/31</td>
</tr>
<tr>
<td>Ch. 1</td>
<td>08/19</td>
<td>08/31</td>
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<tr>
<td>Ch. 2</td>
<td>08/26</td>
<td>09/07</td>
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<td>Ch. 3</td>
<td>09/02</td>
<td>09/14</td>
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<td>Ch. 6</td>
<td>09/09</td>
<td>09/21</td>
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<tr>
<td>Ch. 7 (Means)</td>
<td>09/23</td>
<td>10/12</td>
</tr>
<tr>
<td>Ch. 7 (Proportions)</td>
<td>09/23</td>
<td>10/12</td>
</tr>
<tr>
<td>Ch. 9</td>
<td>10/07</td>
<td>10/19</td>
</tr>
<tr>
<td>Ch. 13</td>
<td>10/28</td>
<td>11/09</td>
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<tr>
<td>Ch. 14.1-14.5</td>
<td>11/11</td>
<td>11/30</td>
</tr>
<tr>
<td>Ch. 14.6</td>
<td>11/11</td>
<td>11/30</td>
</tr>
</tbody>
</table>
**General Student Policies: Academic Integrity (4.1)**
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty.** Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at [http://www.sfasu.edu/policies/student_academic_dishonesty.pdf](http://www.sfasu.edu/policies/student_academic_dishonesty.pdf)

**Withheld Grades in Course Grades Policy (5.5)**
At the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F, except as allowed through policy [i.e., Active Military Service (6.14)]. If students register for the same course in future semesters the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**Students with Disabilities**
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/)

**Acceptable Student Behavior**
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability other students to learn from the instructional program (see the full Student Code of Conduct Code at [http://www.sfasu.edu/policies/student-conduct-code.pdf](http://www.sfasu.edu/policies/student-conduct-code.pdf)) Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic, or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the iCare Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.