**Syllabus**

**ECON 3339-004: Applied Statistical Analysis**  
Stephen F. Austin State University  
Fall 2023

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Dr. Rebecca Davis  
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Phone: (936)-468-1828  
Nelson Rusche College of Business  
Office: McGee Bus. Bldg. 303-F  
Lectures: T/Tr 9:30-10:45  
Location: McGee Bus. Bldg. 324  
Office Hours: T/Tr 12:30-1:30 (online only),  
T/Tr 3:30-4:30,  
W 10:00-12:00 (online only),  
W 12:00-4:00

**Catalog Description:**  
The application of statistical and quantitative methods. Prerequisite: MATH 1342 (previously MTH 220) and MGMT 2372 (previously MGT 272)/or 6 hours of Computer Science.

**Course Description:**  
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.

**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/](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.

General Student Policies:

Program Learning Outcomes
Program learning outcomes define the knowledge, skills, and abilities students are expected to demonstrate upon completion of an academic program. These learning outcomes are regularly assessed to determine student learning and to evaluate overall program effectiveness. You may access the program learning outcomes for your major and particular courses at [http://www.sfasu.edu/cob/ug-plo.asp](http://www.sfasu.edu/cob/ug-plo.asp)
**Academic Integrity (10.4)**

The Code of Student Conduct and Academic Integrity ([https://www.sfasu.edu/docs/policies/10.4.pdf](https://www.sfasu.edu/docs/policies/10.4.pdf)) outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

**Student Conduct (10.4)**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the full Code of Student Conduct and Academic Integrity here: [https://www.sfasu.edu/docs/policies/10.4.pdf](https://www.sfasu.edu/docs/policies/10.4.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.
Course Grades (5.5)
Ordinarily, 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 coursework 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. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

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 promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Student Wellness and Well-Being
SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources: The Dean of Students Office (Rusk Building, 3rd floor lobby), www.sfasu.edu/deanofstudents, 936.468.7249, dos@sfasu.edu; SFA Human Services Counseling Clinic (Human Services, Room 202), www.sfasu.edu/humanservices/139.asp, 936.468.1041; The Health and Wellness Hub “The Hub” (corner of E. College and Raguet St.), To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit, Services include: Health Services, Counseling Services, Student Outreach and Support, Food Pantry, Wellness Coaching, Alcohol and Other Drug Education, www.sfasu.edu/thehub, 936.468.4008, thehub@sfasu.edu.

Crisis Resources: Burke 24-hour crisis line - 1.800.392.8343; National Suicide Crisis Prevention - 9-8-8; Suicide Prevention Lifeline - 1.800.273.TALK (8255); johCrisis Text Line - Text HELLO to 741-741.
Grading System:
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>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>5%</td>
<td>50</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
<td>200</td>
</tr>
<tr>
<td>Research Project</td>
<td>15%</td>
<td>150</td>
</tr>
<tr>
<td>Exam 1</td>
<td>20%</td>
<td>200</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20%</td>
<td>200</td>
</tr>
<tr>
<td>Exam 3</td>
<td>20%</td>
<td>200</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>1000</strong></td>
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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.

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.

Research Project:
Research projects are administered in D2L. They will be completed in groups of four or five. You will choose your group. As a group, you will select the project topic choice from a provided list on a first-come, first-served basis. The project consists of two steps and peer evaluations for each step. The project requires you to clean, organize, visualize, and analyze data to answer a research question. Step 1 accounts for 35% of this grade category, and Step 1 peer evaluations account for 5% of this grade category. Both Step 1 and the Step 1 peer evaluations are due Friday, October 20th. Step 2 accounts for 50% of this grade category, and Step 2 peer evaluations account for 10% of this grade category. Both Step 2 and the Step 2 peer evaluations are due Friday, December 8th. If a student receives a 0 for their (Step1 or Step 2) peer evaluation from all group members, they earn a 0 for that step of the project.

Exams:
All exams are administered in MyStatLab and will be taken in class. Dates for each regular exam are the following:

Exam 1 – Thursday, September 28th
Exam 2 – Tuesday, October 31st
Exam 3 – Thursday, December 7th
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, December 14th from 8:00-10:00 am and will be taken in our regular classroom. The same resources listed for Exams 1-3 are permitted for the final.

**If you miss an exam with an unexcused absence, you will receive a zero for the exam.** If you miss an exam for an unforeseen reason, you should contact me as soon as physically possible. The final exam will be utilized to replace Exams 1-3 that are considered **excused absences.**

**In general, no late work will be accepted.**

**Course Expectations:**
- **Be Prepared**: Students are expected to read assigned material **prior to class** and to participate in class discussions and activities. If you have a question, **never let it go unanswered.**
- **Be in Class**: Consistent attendance is essential for acceptable performance in this course.
- **Be Courteous**: If you attend class, be on time and attend both physically and mentally. Spending class time on anything other than class material is harmful to the collective learning environment and will not be permitted. If you need to leave during class, please do so quietly.
- **If you send me an economics meme via e-mail before the first exam, you will receive 5 extra credit points on that exam.**

**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. You will have significant weekly reading assignments from a mandatory textbook (asynchronous work) and are also expected to complete regular homework assignments throughout the term, generally one for each chapter that is covered in the textbook. Additionally, small quizzes may be assigned during the term. Exam preparation, readings, assignments, and quiz activities average at a minimum 6 hours of work done outside of class each week.
<table>
<thead>
<tr>
<th>Tentative Outline</th>
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</thead>
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| **FTF:** Introduction to the book and course  
  Read: All |
| Chapter 1: Foundational Knowledge  
  Read: All |
| Chapter 2: Organizing and Visualizing Variables  
  Read: All |
| Chapter 3: Numerical Descriptive Measures  
  Read: 3.1, 3.2, 3.4, 3.5, 3.6 |
| Chapter 6: The Normal Distribution  
  Read: 6.1, 6.2, 6.6 |
| Chapter 7: Sampling Distributions  
  Read: All |
| Chapter 9: Hypothesis Tests  
  Read: 9.1, 9.2, 9.3, 9.4, 9.5 |
| Chapter 13: Simple Linear Regression  
| Chapter 14: Multiple Regression  
  Read: 14.1, 14.2, 14.3, 14.4, 14.5, 14.6 |
| Chapter 17*: Getting Ready to Analyze Data in the Future  
  Read: All |

Chapters marked * will be covered as time allows. More detailed information in this regard will be provided as we progress through the semester.
**Schedule:**
Please keep an eye on the MyStatLab schedule. I may need to make adjustments throughout the semester.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Open</th>
<th>Close</th>
<th>Delivery</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>8/28/23</td>
<td>12/8/23</td>
<td>In Class/D2L</td>
</tr>
<tr>
<td>Orientation</td>
<td>9/5/23</td>
<td></td>
<td>MyStatLab</td>
</tr>
<tr>
<td>Ch. 1</td>
<td>9/7/23</td>
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<tr>
<td>Ch. 2</td>
<td>9/15/23</td>
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<td>Ch. 3</td>
<td>9/19/23</td>
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<tr>
<td>Ch. 6</td>
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<td>Exam 1 Prep</td>
<td>9/23/23</td>
<td>9/27/23</td>
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<tr>
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<td>9/28/23</td>
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<td>IN CLASS: MyStatLab</td>
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<tr>
<td>Ch. 7 (Means)</td>
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<td>10/10/23</td>
<td>MyStatLab</td>
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<tr>
<td>Ch. 7 (Proportions)</td>
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<td>MyStatLab</td>
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<tr>
<td>Research Project: Step 1 &amp; Peer Evaluations</td>
<td>10/20/23</td>
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<td>D2L Dropbox</td>
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<tr>
<td>Ch. 9</td>
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<td>10/27/23</td>
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<td>10/31/23</td>
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<td>Ch. 13</td>
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<td>Ch. 14</td>
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<tr>
<td>Final Exam Prep</td>
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<tr>
<td>OPTIONAL Cumulative Final</td>
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<td>8:00-10:00</td>
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**Disclaimer:**
I reserve the right to make changes and amendments to this syllabus through D2L announcements during the semester.