Syllabus for Economics 3339-003
Applied Statistical Analysis
(Spring, 2024)

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Lectures: M/W, 11:00-12:15pm, BU 324  
Office: BU 303-D

Please read this document from the perspective that it is written to help you succeed in this course. It is a great idea to make room in your calendar for this course. This course requires 7.5 hours a week per SFA Policy (https://www.sfasu.edu/docs/hops/02-207.pdf). Please reach out if the course is taking significantly more than the recommended amount of time.

In-Person Office Hours (BU 303-D):  
- Monday, Wednesday, Thursday: (9:00 – 11:00 a.m.)

Online Office Hours:  
- Monday and Wednesday: (2:15 – 3:30 p.m.), Tuesday: (2:00 – 3:30)

I encourage you to take full advantage of office hours this term. For more available times and to ensure your slot please book via https://calendly.com/phelpsrt/availability.

Attendance Policy: Attendance is essential for success in this course. Attendance requires uploading work completed during the lecture. Participation represents to 9% of your grade.

Catalog Description:  
The application of statistical and quantitative methods. Prerequisites: MATH 1342 and (MGMT 2372 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

Teaching Philosophy & Methods  
I love teaching and look forward to interacting with you throughout the semester. I am available to discuss your concerns (class-related or other). We are partners in an effort that can make us all better people. The course is designed to be a transformative learning experience. In class, we will work together on the more challenging content. Class will be a mixture of guided discovery and active learning. In class, we will motivate, clarify, extend, and synthesize the material. Active learning will consist of opportunities to work through problems both individually and in groups.
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 in the Curriculum Management Handbook at https://www.sfasu.edu/sites/default/files/2019-01/RCOB_curriculum_mgt_handbook_2019.pdf

Course Materials:
The Course Note Packet (around $20.00) is only available at the SFA Barnes & Noble and at Jack Backers. You will need the note packet for the first day of class.

You will need access to Excel using a Windows operating system. SFA students have FREE access to Microsoft Office through Office 365. Be sure to install Excel on your computer: http://www.sfasu.edu/mysfa/o365/installing-office/. You will need a web-cam and a microphone. You will also need access to a reliable internet connection. Spotty internet access may result in you losing credit for timed assignment. Use Chrome as your browser and do not use a VPN or other types of IP address cloaking software.

Although I do not recommend using a Mac or a Google computer for this course, students have had few Mac-related issues lately. It may be helpful to use Boot Camp to run Windows on your Mac. I do not support this process, but it may be a better option for some. https://support.apple.com/en-us/HT201468


Our textbook comes with MyStatLab. You will need access to MyStatLab to pass the course. As a result, I can only recommend buying the book through the Pearson website or at the University bookstores. Purchasing from Pearson through the D2L link is the safest and cheapest option. A loose-leaf hard copy is available directly from the publisher. Buying the loose-leaf bundle at the university bookstore will cost more.

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.
   o You have an account if you have ever used a Pearson MyLab & Mastering product, such as MyMathLab, MyITLab, MySpanishLab, MasteringBiology or MasteringPhysics.
   o If you do not have an account, select “Create” and complete the required fields.
6. Select an access option.
   o Buy access through Pearson using a credit card or PayPal account (recommended).
   o Temporary access is available by selecting the link near the bottom of the page.
     ▪ To upgrade before the deadline select “Upgrade Access”.
     ▪ Enter an access code or buy access with a credit card or PayPal account.
   o Enter the access code that came with your textbook or was purchased separately from the bookstore.

To sign in later: In our D2L course, click on the Pearson link on the lower right of the home page.
**Grading System:**
Your final grade will be based on points: **A**: 900, **B**: 800, **C**: 700, **D**: 600, **F**: 599 and below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>90</td>
<td>9.0%</td>
</tr>
<tr>
<td>Homework</td>
<td>160</td>
<td>16.0%</td>
</tr>
<tr>
<td>Dropbox Projects</td>
<td>105</td>
<td>10.5%</td>
</tr>
<tr>
<td>Exam 1</td>
<td>150</td>
<td>15.0%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>150</td>
<td>15.0%</td>
</tr>
<tr>
<td>Exam 3</td>
<td>150</td>
<td>15.0%</td>
</tr>
<tr>
<td>Final Exam Prep</td>
<td>45</td>
<td>4.5%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150</td>
<td>15.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1000</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Work ahead as far as you like. I do not accept late work.**

**Class Participation**
We will have several in-class quizzes in the first five minutes of class. You must be present to participate. Additionally, we will save our Excel work during class. The average of these two scores will be your participation score.

**Homework (MyStatLab)**
1. See the attached schedule for deadlines.
2. You have **four final attempts** on each assignment.
3. **You should earn a perfect grade on all homework.**
4. See the FAQ module to save time and post questions.

**Dropbox Projects (D2L > Content > Course Projects):**
Completing the projects is vital to learning the material. These assignments provide feedback to you about your personal level of understanding and feedback to me about the overall level of understanding in the class. **Make sure that you are doing and turning in your own personal work.**
- **Do not work with others on the projects.** Everything you need is in the course note packet.
- Reach out to me if you need additional help.
- **Do not share your work with others.**
- Cite any sources external to the course. **Do not use AI.**
- Dropbox **checklists must be complete to submit your work.**
- **Projects cannot be re-submitted from previous course attempts.**
**Exams:**
To do well in this course take full advantage of exam preps. You have two attempts on each. Those who take advantage of them score an average of 20% higher on the actual exams.

**All exams will be recorded and proctored.** Failing to comply with proctoring instructions will justify a grade of zero. If you miss an exam for an unforeseen reason, you should contact me as soon as you are physically able to pick up the phone. **The final exam is cumulative.** Be sure to start exams at least two hours before the deadlines.

Use the below for guidelines on all exams. **Any use of resources or software not listed as permitted below is a violation of the exam rules and will result in no credit for the exam.**

- The internet can be **used only to access the exam.**
- **You must complete exams on your own.**
- Neither headphones nor hoods are permitted.
- You must not pause or exit the exam once you have begun.
- You are encouraged to use the **Excel templates** (purple and green files) that you build in class on all exams.
- Note-Sheets: You are permitted a note-sheet during the Exams/Exam Preps.
  - It must be **hand written.**
    - Building these note-sheets is a great study exercise.
  - It must be the size of a standard sheet of paper or smaller.
  - It can only be one-sided for exams 1-3.
  - For the final, you are allowed a **two-sided note-sheet** (standard paper size).
  - I recommend that you laminate your final exam note-sheet for future use.
- **Calculators are not allowed.** We are testing your ability in Excel.
- Blank scratch paper is allowed.
- Any indication of a cellphone in the room during an exam is cheating.

**Course Expectations:**
- Consistently **attending class is essential** for acceptable performance in this course.
- If you are **having trouble keeping up with the Excel work, then practice with the Excel Training Videos** until you are able to keep up using only the audio cues.
- If you have a question, **never let it go unanswered.**
  - Bring it up in class
  - Look for an answer in the packet.
  - Look for an answer in the FAQ files (D2L > Content > Frequently Asked Questions).
  - Post your questions to the FAQ discussion board.
  - For complex issues, or schedule a web conference with me.
- **Read the note-packet frequently** after filling it out in class. If you look at new material at least once within forty-eight hours of first seeing it, you will learn the material more thoroughly and studying for the exam will be easier.
- Improve the Course: If you know of a way to make the course better, please share your ideas with me.
### Tentative Outline

<table>
<thead>
<tr>
<th>Title</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FTF: Introduction to the book and course</strong> (Read)</td>
<td>Read: {All but Tableau}</td>
</tr>
<tr>
<td><strong>Chapter 1: Foundational Knowledge</strong> (5% of Course)</td>
<td>Read: {All but Tableau}</td>
</tr>
<tr>
<td><strong>Chapter 2: Organizing and Visualizing Variables</strong> (10% of Course)</td>
<td>Covered: {All}</td>
</tr>
<tr>
<td><strong>Chapter 3: Numerical Descriptive Measures</strong> (Short In-Class Recap 7%)</td>
<td>Covered: {3.1, 3.2, 3.4, 3.5, 3.6}</td>
</tr>
<tr>
<td><strong>Chapter 6: The Normal Distribution</strong> (Short In-Class Recap 8%)</td>
<td>Covered: {6.1, 6.2, 6.6}</td>
</tr>
<tr>
<td><strong>Chapter 7: Sampling Distributions</strong> (15% of Course)</td>
<td>Covered: {All}</td>
</tr>
<tr>
<td><strong>Chapter 9: Hypothesis Tests</strong> (15% of Course)</td>
<td>Covered: {9.1, 9.2, 9.3, 9.4, 9.5}</td>
</tr>
<tr>
<td><strong>Chapter 13: Simple Linear Regression</strong> (20% of Course)</td>
<td>Covered: {13.1, 13.2, 13.3, 13.4, 13.5, 13.7, 13.9}</td>
</tr>
<tr>
<td><strong>Chapter 14: Multiple Regression</strong> (20% of Course)</td>
<td>Covered: {14.1, 14.2, 14.3, 14.4, 14.5, 14.6}</td>
</tr>
<tr>
<td><strong>Chapter 17: Getting Ready to Analyze Data in the Future</strong> (Read and Review Above)</td>
<td>Read: {All}</td>
</tr>
</tbody>
</table>

If you have a simple question after reading this syllabus, **bring it up in class**. Outside of class please **make use of my office hours**. Outside of office hours, review the [Frequently Asked Questions Module](https://www.sfasu.edu/student-syllabus-resources) (D2L > Content > Frequently Asked Questions). The FAQ module is broken down into subject areas and contains correspondence from previous semesters. If you cannot find your answer in the FAQ page related to your question, then post your question to the discussion board linked to the FAQ topic. Often, a peer will answer your question right away. Each time a student posts a quality answer (to a question not addressed elsewhere) before I do, they will receive **five extra credit points** (up to 25 points). I have subscribed to all of the discussion boards and **I will be instantly notified of your question**. For more complex issues schedule a web conference with me.

**Student Syllabus Resources:**

For additional policies and information go to: [https://www.sfasu.edu/student-syllabus-resources](https://www.sfasu.edu/student-syllabus-resources)

This resource addresses the following:

- 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
Complete Class Schedule:

Work ahead to avoid due-dates to reduce stress. I reserve the right to make changes and amendments to this syllabus through class announcements during the semester. Changes are very rare and are made only in an effort to improve the class average. All assignments and participation windows close at 11:00 pm.

<table>
<thead>
<tr>
<th>Day</th>
<th>Due Date</th>
<th>Assignment</th>
<th>Delivery</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Mon/Wed</td>
<td>Class</td>
<td>Participation</td>
<td>In Class</td>
<td>90 (Rolling)</td>
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<tr>
<td>Wednesday</td>
<td>24-Jan</td>
<td>Orientation</td>
<td>MyStatLab</td>
<td>16</td>
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<tr>
<td>Thursday</td>
<td>25-Jan</td>
<td>Zoom Clip Pivot</td>
<td>D2L Dropbox</td>
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<td>Friday</td>
<td>26-Jan</td>
<td>Ch 1 Notes</td>
<td>D2L InClassVideos</td>
<td>Participation</td>
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<td>Saturday</td>
<td>27-Jan</td>
<td>Ch1</td>
<td>MyStatLab</td>
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<td>Saturday</td>
<td>3-Feb</td>
<td>Ch2</td>
<td>MyStatLab</td>
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<tr>
<td>Wednesday</td>
<td>7-Feb</td>
<td>Ch3</td>
<td>MyStatLab</td>
<td>16</td>
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<td>9-Feb</td>
<td>Ch6</td>
<td>MyStatLab</td>
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<td>12-Feb</td>
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<td>MyStatLab</td>
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<td>14-Feb</td>
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<td>In Class</td>
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<tr>
<td>Wednesday</td>
<td>21-Feb</td>
<td>Ch 7 (Means)</td>
<td>MyStatLab</td>
<td>16</td>
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<tr>
<td>Friday</td>
<td>23-Feb</td>
<td>Ch 7 (Proportions)</td>
<td>MyStatLab</td>
<td>16</td>
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<tr>
<td>Monday</td>
<td>4-Mar</td>
<td>Ch 9</td>
<td>MyStatLab</td>
<td>16</td>
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<td>Tuesday</td>
<td>5-Mar</td>
<td>Exam 2 Prep</td>
<td>MyStatLab</td>
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<tr>
<td>Wednesday</td>
<td>6-Mar</td>
<td>Exam 2</td>
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<td>Friday</td>
<td>8-Mar</td>
<td>Concept Map</td>
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<td>Friday</td>
<td>15-Apr</td>
<td>Ch 13</td>
<td>MyStatLab</td>
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<tr>
<td>Monday</td>
<td>16-Apr</td>
<td>Ch 14.1-5</td>
<td>MyStatLab</td>
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<td>Tuesday</td>
<td>17-Apr</td>
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<td>Wednesday</td>
<td>24-Apr</td>
<td>Ch 14.6</td>
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<tr>
<td>Friday</td>
<td>3-May</td>
<td>Regression Interp.</td>
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<td>Sunday</td>
<td>5-May</td>
<td>Final Exam Prep</td>
<td>MyStatLab</td>
<td>45</td>
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<tr>
<td>Wednesday</td>
<td>8-May</td>
<td>Cumulative Final</td>
<td>10:30 - 11:45 AM</td>
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