Syllabus for Economics 3339-501
Applied Statistical Analysis
(Fall, 2020)

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Lectures: On D2L under “Content” > “In Class Videos” (Not Optional)

***Because this is an online course, it is particularly important that you read this entire syllabus!***

***I communicate with the class through D2L announcements. Check your notifications.***

***According to the federal definition of a credit hour (not my choice), all eight-week three-hour courses are to require a minimum of 15 hours of your time each full week. As this is an 8-week course, our final will be on 10/14/20.***

Office Hours
- **Online:** Monday – Thursday: (2:00-3:00 p.m.)
- **Virtual or face-to-face:** Tues. and Thur. (8:45 – 9:15 a.m.), Fri. (8:45 – 11:45a.m.)
  Wed. (8:45 – 10:45 a.m.)

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 defined as following along with the In-Class Videos. This means following along with the Excel work and completing the notes while watching the videos. Completed Excel files must be submitted when each in-class video ends. Check each video for end-card instructions.

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

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 the In-Class Videos, we will work together on the more challenging content. In-Class Videos pair with the course note-packet. These videos will make your experience as close to the face-to-face experience as possible. The videos will be a mixture of guided discovery and active learning. They will motivate, clarify, extend, and synthesize the material. Active learning will consist of opportunities to work through problems in the note-packet prior to the correct answers being revealed.
Course Materials:
The course Note Packet (around $20.00) is only available at the SFA Barnes & Noble and at Jack Backers. The note packet together with the In-Class Videos will make this course feel like a face-to-face course. Taking notes from the video and following along with the computer work is equivalent to attending class. You must show that you own a new course packet by 8/28/2020 to receive any class participation credit (90 points).

You will need access to Excel 2016 using a Windows operating system. SFA students have FREE access to Microsoft Office 2016 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 assignments and exams. Use Chrome as your browser and do not use a VPN or other types of IP address cloaking software.

I do not recommend using a Mac or a Google computer for this course. An exception to this rule is if you are willing 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

The primary text is, Statistics for Managers Using Microsoft Excel (8th Edition) by Levine, Stephan, and Szabat. It is published by Pearson (ISBN-13:9780134466033). We will also make use of Excel. 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. 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 update 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:
1. In our D2L course, click on the Pearson link on the lower right of the home page.
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).

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/4.1-student-academic-dishonesty.pdf](http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf).

Withheld Grades Semester Grades Policy 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 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. 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 for the purpose of computing the grade point average. For additional information, go to [http://www.sfasu.edu/policies/course-grades-5.5.pdf](http://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 in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

Grading System: See Pass/Fail Conditions Below
Your final grade will be based on points: A: 900, B: 800, C: 700, D: 600, F: 599 and below. To prevent testing dishonestly, you will receive an “F” if one the following conditions is met:
Grading System: See Pass/Fail Conditions Below
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><strong>1000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

I do not accept late work.

**Class Participation:** This is the fastest and easiest way to pass the class. At the end of the term, there will be a .86 to .94 correlation between participation grades and the rest of the course grade. **If you ever have a failing participation score, then you are likely on course to fail the class.**

1. Certify you new course note packet (See D2L > Content > Getting Started Checklist).
2. Completely follow along with all In-Class Videos.
   a. See the attached schedule for deadlines.
   b. Do not use the “Pulse app”.
   c. I am tracking your activity.
   d. Distracted viewing does not count.
3. Submit all of your completed in-class work to the appropriate folder.
   a. Upload completed Excel files at the end of each In-Class Video.
   b. There may be multiple uploads per file as you make progress toward completion.
   c. You are documenting your progress through the course.
   d. Files uploaded all at once will not receive credit.
5. It is your responsibility to make sure that your participation grade matches your current participation level.
6. Fully Participating students will have a perfect participation grade at all times.

**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. Everything you need is in the course note packet.
- Do not share your work with others.
- Cite any sources external to the course.
- Dropbox checklists must be complete to submit your work.
No two exams are alike. Exams are algorithmic. Each exam has a different set of problems and each problem has a different set of data and answers.

Exam Preps: 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. Use only exam-permitted resources.

Exams: All Exams will be proctored via ProctorU. There is no need to schedule. You will access the exams just like other assignments. You will then be prompted to begin a ProctorU session. 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 the exam at least two hours before the deadline.

Any use of resources or software not listed as permitted below is cheating and will result in failing the exam.

- Show all resources to the camera to document them.
- The internet can be used only to access the exam.
- **You must complete them alone.**
- **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 we 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.
- Again, show all resources to the camera to document them.
- Any indication of a cellphone in the room is cheating.

Course Expectations:

- **Consistently** using the In-Class Videos to fill in the note-packet and following along in Excel is essential for acceptable performance in this course.
- **Treat the In-Class Videos like a face-to-face class.** Watch them once and take good notes. You do not have time to go through the videos multiple times.
- If you are having trouble keeping up with the Excel work, then practice with the intro to Excel YouTube videos until you are able to keep up using only the audio cues.
- If you have a question, never let it go unanswered.
  1. Look for an answer in the packet.
  2. Look for an answer in the FAQ files.
  3. Post your questions to the FAQ discussion board.
- For complex issues, schedule a web conference with me.
- **Read the note-packet** frequently after filling it in using the In-Class Videos. 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>Chapter</th>
<th>Title</th>
<th>Percentage</th>
<th>Read</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Foundational Knowledge (Review on Your Own)</td>
<td>(10% of Course)</td>
<td>{All}</td>
</tr>
<tr>
<td>2</td>
<td>Organizing and Visualizing Variables</td>
<td>(10% of Course)</td>
<td>{All}</td>
</tr>
<tr>
<td>3</td>
<td>Numerical Descriptive Measures</td>
<td>(7% of Course)</td>
<td>{3.1, 3.2, 3.4, 3.5, 3.6}</td>
</tr>
<tr>
<td>6</td>
<td>The Normal Distribution</td>
<td>(8% of Course)</td>
<td>{6.1, 6.2, 6.6}</td>
</tr>
<tr>
<td>7</td>
<td>Sampling Distributions</td>
<td>(10% of Course)</td>
<td>{All}</td>
</tr>
<tr>
<td>9</td>
<td>Hypothesis Tests</td>
<td>(15% of Course)</td>
<td>{9.1, 9.2, 9.3, 9.4, 9.5}</td>
</tr>
<tr>
<td>13</td>
<td>Simple Linear Regression</td>
<td>(20% of Course)</td>
<td>{13.1, 13.2, 13.3, 13.4, 13.5, 13.7, 13.9}</td>
</tr>
<tr>
<td>14</td>
<td>Multiple Regression</td>
<td>(15% of Course)</td>
<td>{14.1, 14.2, 14.3, 14.4, 14.5, 14.6}</td>
</tr>
<tr>
<td>10</td>
<td>Two Sample Tests</td>
<td>(15% of Course)</td>
<td>{All}</td>
</tr>
<tr>
<td>17</td>
<td>Getting Ready to Analyze Data in the Future</td>
<td>(Read and Review Above)</td>
<td>{All}</td>
</tr>
</tbody>
</table>

In-Class Videos will expire at 11:00 p.m. on the dates listed in the folders (D2L > Content > In-Class Videos). Your semester will go better if you **work ahead** and **avoid the close dates**. **Once the In-Class Videos have expired, they are no longer available.** Watch online in D2L. Videos viewed in the app “Pulse” will not count for participation. Using two screens is recommended: see D2L > Content > Frequently Asked Questions > Second Screen Solutions.

- **Save all completed in-class Excel work in the “Completed Files for…” for each data module.** Upload files every time an In-Class Video ends.
- **Not participating with the In-Class Videos as you would in a face-to-face class will very likely cause you to fail the course.** Use your class participation grade as a predictor of your final grade. The correlation between participation and the rest of the course grade ranges from .86 to .94.

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

If you have a question after reading this syllabus, you should review the Frequently Asked Questions Module (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 two extra credit points (up to 25 points). I have subscribed to all of the discussion boards and will be instantly notified of your question. **For more complex issues Schedule a web conference with me.**
### Complete Class Schedule: Work ahead and avoid due dates.

<table>
<thead>
<tr>
<th>Deadlines</th>
<th>Participation</th>
<th>Assignments</th>
<th>Projects</th>
<th>Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 PM</td>
<td>90 points</td>
<td>160 Points</td>
<td>105 Points</td>
<td>645 points</td>
</tr>
</tbody>
</table>

**Monday, August 24, 2020**
- Orientation

**Tuesday, August 25, 2020**
- Mod.1

**Wednesday, August 26, 2020**
- Ch 1

**Thursday, August 27, 2020**
- Packet Cert.

**Friday, August 28, 2020**
- Mod.2

**Saturday, August 29, 2020**
- Ch 2 (Start Early)

**Sunday, August 30, 2020**
- Mod.3

**Monday, August 31, 2020**
- Ch 3

**Tuesday, September 1, 2020**
- Ch 6

**Wednesday, September 2, 2020**
- Exam 1 Prep

**Thursday, September 3, 2020**
- Exam 1

**Friday, September 4, 2020**
- Build. Samp. Dist.

**Saturday, September 5, 2020**
- Exam 1

**Sunday, September 6, 2020**
- Exam 2 Prep

**Monday, September 7, 2020**
- Exam 2

**Tuesday, September 8, 2020**
- Mod.4

**Wednesday, September 9, 2020**
- Ch 7 (Means)

**Thursday, September 10, 2020**
- Ch 7 (Prop.)

**Friday, September 11, 2020**
- B.S.D. Checklist

**Saturday, September 12, 2020**
- Build. Samp. Dist.

**Sunday, September 13, 2020**
- Mod.6

**Monday, September 14, 2020**
- Mod.7

**Tuesday, September 15, 2020**
- Ch 9

**Wednesday, September 16, 2020**
- C.M. Checklist

**Thursday, September 17, 2020**
- Concept Map

**Friday, September 18, 2020**
- Exam 2 Prep

**Saturday, September 19, 2020**
- Exam 2

**Sunday, September 20, 2020**
- Exam 3 Prep

**Monday, September 21, 2020**
- Exam 3

**Tuesday, September 22, 2020**
- Mod.8

**Wednesday, September 23, 2020**
- Mod.9

**Thursday, September 24, 2020**
- Mod.10

**Friday, September 25, 2020**
- Mod.11

**Saturday, September 26, 2020**
- Ch 13

**Sunday, September 27, 2020**
- Mod.12

**Monday, September 28, 2020**
- Ch 14.1-.5

**Tuesday, September 29, 2020**
- Mod.13

**Wednesday, September 30, 2020**
- Ch 14.6

**Thursday, October 1, 2020**
- R.I. Checklist

**Friday, October 2, 2020**
- Regression Interp.

**Saturday, October 3, 2020**
- Exam 3 Prep

**Sunday, October 4, 2020**
- Exam 3

**Monday, October 5, 2020**
- Packet Check by 5:00

**Tuesday, October 6, 2020**
- Packet Check by 5:00

**Wednesday, October 7, 2020**
- Mod.14

**Thursday, October 8, 2020**
- Mod.15

**Friday, October 9, 2020**
- Ch 10

**Saturday, October 10, 2020**
- Mod.16

**Sunday, October 11, 2020**
- Final Exam Prep

**Monday, October 12, 2020**
- Final Exam Prep

**Tuesday, October 13, 2020**
- Cumulative Final

**Wednesday, October 14, 2020**
- Cumulative Final