MTH 1342: Introduction to Probability and Statistics Summer 2 2021

Name: Mrs. Cook
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Office Hours:
MTWR 9:30-10:00 and 11:40-12:15
Other times available by appointment.

Class meeting time and place:
Section .003 MTWR 10:00-11:40 Room 210

Course Description: This is a 3 hour credit course. Probability, random variables, mean and variance, binomial distribution, normal distribution, statistical inference and linear regression.

Objectives and Outcomes: A complete list of program learning objectives, general education core curriculum objectives/outcomes and other course information can be found using the following link: http://www2.sfasu.edu/math/courses/syllabi/MTH220Syllabus.pdf

Required Materials:
Text: Introductory Statistics (custom published) by Neil A. Weiss
Package ISBN: 1269959719

Calculator: A scientific calculator with statistics capabilities is required. Graphing calculators are permitted, but not required.
Other Supplies: A 2” binder, dividers, different colored highlighters, pencils

Grading Policy:
Grade Breakdown
The final course grade will be computed using the following weights:
Exam 1 - 3 60% (20% each)
Daily Work 20%
Comprehensive Final exam 20%

Daily Work
• Online homework will be required using My Math Lab at www.mymathlab.com. When you create an account, use the following:
  Section 003: cook33693
• At the beginning of class, you may ask questions on material covered the previous class period.
• You earn your grade by communicating your understanding of the material through the homework and tests. Clearly communicating mathematics will be essential in this course.
• I will send e-mails to the entire class during the semester. Check your SFA e-mail account frequently.
• To contact me, you may call my office, drop by my office, or e-mail me. I will do my best to reply quickly.
• Students are expected to respect the learning environment of their fellow students. Towards this end, use of mobile phones, mp3 players, PDAs, etc., is forbidden during class.

Exams
• If you miss a test and have a valid excuse, I will replace your missed test grade by your final exam grade. However, your final may only replace one other score.
• Attendance Policy: Over 3 unexcused absences may result in a grade reduction.
You must bring and display either your SFASU Student ID or a valid driver’s license before you will be permitted to take each test and the final exam. I must be able to recognize you from the photo on the ID.

Since you have a full semester to arrange any travel plans, they are not an excuse for missing the final.

Students are expected to attend every class meeting, arriving on time. If you have 3 or less absences and score a 70% or better on the final, that score may replace your lowest test grade or your homework grade. If a student leaves class early without permission, the student will be marked absent.

You may get help on work that is assigned to be done outside of class, unless otherwise instructed, but I expect any work that you turn in to reflect your understanding of the material. On in-class graded work, I expect you to only use your brains, pencil, paper, and, sometimes, a calculator.

**Final Exam**

The final exam is comprehensive and counts 20% toward the final grade. The final exam is mandatory.

**Resurrection Policy:** Your final exam score can replace your lowest exam score. The final exam score can only replace ONE exam score and it cannot replace any other score.

**Attendance Policy:** Attendance is expected. You are responsible for any notes and assignments that you miss.

The following is an excerpt from SFA Policy 5.4:

*The federal definition of a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates:*

1. *Not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time, or;*

2. *At least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.*

To this end, all students in courses offered by the Department of Mathematics and Statistics that wish to be successful should plan to spend a minimum of two hours outside of class for every credit hour associated with this course. Expected activities to be completed in the time outside of class include reviewing notes from previous class meetings, reading assigned course resources, completing all assigned exercises and projects, and performing periodic assessment preparation.

See [http://www2.sfasu.edu/math/docs/syllabi/MTH220Syllabus.pdf](http://www2.sfasu.edu/math/docs/syllabi/MTH220Syllabus.pdf) for elements common to all sections.

**Tutoring:** The AARC (Academic Assistance and Resource Center) in the Steen Library has **free tutoring** available! They can be reached at 468 - 4108, or the website [http://libweb.sfasu.edu/aarc](http://libweb.sfasu.edu/aarc). The AARC also has walk in tables available.

**Statistics Learning Team:**

- TBD
**D2L:** Course materials will be located on D2L. It is your responsibility to check D2L daily. You will use your MySFA username and password on the website [www.D2L.sfasu.edu](http://www.D2L.sfasu.edu).

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**Course Calendar / Outline:**

- **Descriptive Statistics [CO 1, 2, 3]**
  - Graphical Display of Data
  - Measures of location
  - Measures of Dispersion
  - Approximate time spent: 10%

- **Probability [CO 1, 2, 3]**
  - Classical Probability
  - Probability Laws (Rules)
  - Counting Techniques
  - Approximate time spent: 20%

- **Probability Distributions [CO 1, 2, 3]**
  - Random Variables
  - Discrete Distributions
    - Binomial Distribution
    - Hypergeometric Distribution
  - Continuous Distributions
    - Uniform Distribution
    - Normal Distribution
  - Approximate time spent: 20%

- **Sampling Distributions [CO 1, 2, 3]**
  - Random Samples
  - Central Limit Theorem
  - Approximate time spent: 10%

- **Statistical Inference [CO 1, 2, 3]**
  - Estimation
    - Point Estimation
    - Interval Estimation
  - Approximate time spent: 30%

- **Linear Regression [CO 1, 2, 3]**
  - Approximate time spent: 5%

- **Explicit instruction in Critical Thinking, Communication and Empirical and Quantitative Reasoning is in addition to implicit instruction, modeling and practice that occur daily in the discussion of limits and continuity, derivatives and antiderivatives, applications of derivatives and definite integration. This explicit instruction includes explanation of solving mathematical problems by thinking critically, communicating logically ordered solutions with complete and correct notation, and applying empirical or quantitative skills as appropriate to the problem.**
  - Approximate time spent: 5%

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**Tentative Test Schedule:**

- Exam 1: July 8th
- Exam 2: July 22nd
- Exam 3: August 3rd

**Final Exam:**

**Section .003 - Friday August 6th 10:00-11:40 pm**