

GBAA 3352. Quantitative Methods in Business

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On-line (Teams) office hours: Email me to make an appointment.

Credit Hours/Time Dedicated (per week): 3 credits/9 hours of time commitment (class time, reading, quizzes, studying)

Classroom/Time: Online anytime.

Prerequisites: None.

Required Class Materials

We are going to use an e-book and the **Connect** platform from McGraw-Hill. The textbook is:

David Doane & Lori Seward. (2022). Applied Statistics in Business and Economics. 7th Edition. McGraw Hill

You must buy the Connect access (which includes the eBook as well) through the link in Blackboard (click on Connect Registration).

Course Description

Since the first two decades of the last century, our reality has been changing rapidly. With the development of computational capabilities, we have seen an increase in the development of tools for analysis in all our activities. Nowadays, being informed and having data is vital to making decisions not only in our daily lives but also in business. The technological revolution has allowed us to increase our data storage capacity, create new data, and use new quantitative techniques that can help us enhance our understanding of real-world problems and reduce uncertainty about future events. Statistics can provide us with such tools.

Quantitative methods in Business involves the application of statistics to analyze business data. Companies use business stats to describe data, test correlations, make inferences, and forecast. This course emphasizes thinking about data, choosing appropriate analytic tools, and using computers effectively.



Learning Outcomes

At the end of course, you will be able to

- 1. Use different tools to describe data
- 2. Calculate and interpret descriptive statistics.
- 3. Calculate probabilities of occurrence of random events.
- 4. Distinguish among the different probability distributions.
- 5. Carry out one and two-sample hypothesis tests
- 6. Estimate the coefficients in a regression and carry out test about their significance.
- 7. Analyze the significance of a regression and make forecasting.

Teaching Methods/Couse Format

This is an online course. With my guide, I hope you can work on the different activities, submit them before their deadlines, and reach the learning objectives of the course.

Assessment strategy

Exams 2 online exams (midterm and the final exam)	50% (25% each)
Pre-class activities Chapter and videos (some). Due before the start of the chapter.	25%
After-class activities Homework due by midnight of the day before the start of the next chapter	25%

Each on-line exam is composed of a mixture of definitions, multiple choice questions, short answer questions, quantitative problems, and graph analysis where you are expected to differentiate concepts, analyze particular problems and determine the outcome of such problem, identify a problem within a given context by means of a graph.

Homework or chapter readings are due each Sunday before midnight (11:59 pm central time). Each assignment is worth 100 points.



Course Schedule and Contents

Week	Торіс	Reading/Videos Deadlines	Assignments' Deadline	
1	Registration, getting started Blackboard Ultra and Connect.			
2	Ch. 1. Overview of Statistics	Jan 21	Jan 28	
3	Ch. 2. Data collection	Jan 28	Feb 4	
4	Ch. 3. Describing data visually	Feb 4	Feb 11	
5	Ch. 4. Descriptive statistics	Feb 11	Feb 18	
6	Ch. 5. Probability	Feb 18	Feb 25	
7	Ch. 6. Discrete probability distributions	Feb 25	Mar 3	
8	Midterm. Chapters 2, 3, 4, 5, & 7	Mar 4		
Spring Break				
9	Ch. 7. Continues probability distributions	Mar 17	Mar 24	
10	Ch. 9. One-sample hypothesis tests	Mar 24	Mar 31	
11	Ch. 10. Two-sample hypothesis tests	Mar 31	Apr 7	
12	Ch.11. Analysis of Variance	Apr 7	Apr 14	
13	Ch. 12. Simple regression	Apr 14	Apr 21	
14	Ch. 13. Multiple regression	Apr 21	Apr 28	
15	Ch. 14. Time series analysis	Apr 28	No homework	
16	Final exam. Chapters 7, 9, 10, 11, 12, 13, & 14.	May 6		

Grading Policies and Procedures

If you find an error in the way you have been graded, please email me a request for my consideration. Any changes to exam or assignment grades must be requested not later than one week after the respective deadline but BEFORE THE LAST DAY OF CLASS.

Students who miss an exam as the result of required participation in a university activity, a death in the immediate family, or a serious illness (COVID quarantine without a positive test does not count) will receive a make-up exam upon request but no later than 2 weeks after the incident. If you miss an exam due to one of the valid excuses above, please, contact the instructor within 48 hours (about 2 days) to be eligible to receive a make-up assignment. The instructor has discretion



over the composition of any make-up exams. Finally, students who miss an exam for any other reason will receive a zero score for the exam.

Grading Scale

Percent Range (Final Score)	Letter Grade
90 - 100	A
80 - 89	В
70 - 79	С
60 - 69	D
59 and below	F

Course Expectations

What you should expect from me

- 1. The instructor will treat each one of you with respect and as an individual with his/her own beliefs, thoughts, and needs.
- 2. The instructor will provide weekly communication with the class through announcements (video and text), email notifications, and virtual office hours.
- 3. The instructor will respond to emails within 24 hours of receipt during the hours of 9:00 am-4:00 pm, Monday-Friday.
- 4. The instructor will be available to answer questions from students during virtual office hours.
- 5. The instructor will grade assignments and projects according to the specific rubric within two weeks of the submission date.
- 6. The instructor will provide feedback to journals and discussion boards as needed every week.
- 7. The instructor will provide clear and concise instructions on how to complete the online course requirements or any other activity.
- 8. And, finally, but not less importantly, the instructor will not change the deadline for the assignments unless something of major force happens.

My expectations from students

- 1. Positive, proactive, or successful students should be diligent in using both oral and written communication showing respect for each one individual's opinion.
- 2. Positive, proactive, or successful students will familiarize themselves with the course syllabus, policies, assessments, evaluation, grading criteria, and course design.
- 3. Positive, proactive, or successful students will complete all coursework on the assigned due date.
- 4. Positive, proactive, or successful students will engage in the course, with their peers, and the instructor, and with open communication and active participation.



- 5. Students should respond to instructor communication requests regarding course progress and general inquiries on time.
- 6. Positive, proactive, or successful students will not plagiarize the work of others, or use the work of their peers and claim it as their own.
- 7. Positive, proactive, or successful students will use the American Psychological Association (APA) system of referencing when submitting a paper.
- 8. Positive, proactive, or successful students will pre-plan for testing situations and ensure they can access the internet to complete the exam during its assigned date and time.
- 9. Students will be proactive and resourceful to problem solve in case of internet or technical issues.

Sul Ross State University Important Information

1. Official Communications

Official outside-of-class-meeting communications will be delivered to the students via their SRSU e-mail. Students are responsible to check their e-mail daily. Not having checked messages is not a valid excuse for missed course work. Communications can also be done by appointment. IT support regarding blackboard is listed in the image below.



Or by clicking at https://www.sulross.edu/bb/.

2. Policy on Academic Misconduct

Please refer to:

https://d1mg6ms3fa0onj.cloudfront.net/wpcontent/uploads/2020/09/student_handbook_2 019-2020_revision_12.7.2020.pdf

Students should familiarize themselves with the SRSU Student Code of Conduct. Cheating, plagiarism, and/or other form of academic misconduct are NOT TOLERATED in class. Any student found guilty of such misconduct will be subject to disciplinary actions, including, but not limited to, **zero** score on his/her class activities.



3. Special Needs

Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartze, M. Ed., L.P.C., in **Counseling and Accessibility Services**, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: 432-837-8691. E-mail: mschwartze@sulross.edu. All medical information is treated confidentially.