MGMT 2331 DF1 – Applied Business Statistics

Course Description/Overview

Introduction to statistical analysis including such topics as: descriptive statistics, probability distributions, sampling, statistical inference, and correlation and regression analysis.

Prerequisite Knowledge
MATH 1324 & BUSI 1305

Course Technology
ASU Blackboard, Microsoft Excel, McGraw Hill Connect, Blackboard Collaborate

Class Meeting Times
Asynchronous Online, Collaborate (recorded lectures), January 18 – March 11, 2022

Technical Support
The Technology Service Center (TSC) may be contacted by calling (325) 942-2911 or 1-866-942-2911 or by email at helpdesk@angelo.edu

Faculty/Instructor Information

Name: Juehui (Richard) Shi, Ph.D.
Title: Assistant Professor Management
Office: RAS 207
Phone: 325-486-6096
E-Mail: jshi@angelo.edu
Office Hours: In person Monday 2–5PM, Wednesday 3–5PM; Email; Webex

About the Course

This course grows your Excel skills for practical business applications, which can land you in well-paying business analytics career. The SmarBook assignments adapt to your learning style and offer you instant feedbacks to improve your success. The goal is to have a relaxed rewarding learning environment. You are required to watch the recorded lectures, on which the midterm and the final exams are based. Ask questions early before they are compounded. If you have any questions during this learning process, please see me in RAS 207 Monday 2–5PM Wednesday 3–5PM for coaching sessions or email me to schedule webex meetings. I am always there to guide you on your journey to acquire the Excel skills. Tutoring, which is offered by the Norris-Vincent College of Business Center for Student Success, is also available if you need extra help with this course.

Course Objectives

Student Learning Outcomes
Upon completion of this course, students will be able to...

- Define common statistical terms, such as mean, median, sample distribution.
- Identify different types of data and the applicable statistical techniques to summarize and use such data depending upon the situation.
- Use Microsoft Excel to generate statistical output, and relate such output with management solutions.
- Interpret basic probability concepts and be able to use such concepts in management situations.
- Construct confidence intervals and test statistical hypotheses.
- Use Microsoft Excel to calculate and interpret the results of bivariate regression and correlation analysis for explaining the relationship among variables.

Assessment Methods
SmartBook readings, midterm and final exams will be used to assess learning in this course. Connect (registration instruction on Blackboard) is required for SmartBook.

Course Textbook and Required Readings

Title: Business Statistics and Analytics in Practice
Author: Bowerman
Edition: 9th

The students are required to watch recorded lectures and practice with included Excel dataset in each Chapter folder in order to answer the questions on the mid-term and final exams. Recorded lectures for mid-term and final review are available in the exam folder.

Grading Policies

Grade Calculations	Percent of Grade	Due
Average SmartBook Grade	50%	Due 11:59PM Central Time Wednesdays pages 7 and 8
Midterm Exam Grade	25%	Blackboard Due 11:59 PM Central Time 02/16/2022
Final Exam Grade	25%	Blackboard Due 11:59 PM Central Time 03/11/2022

Your Course Grade = Average SmartBook Grade * 50% + Midterm Exam Grade * 25% + Final Exam Grade * 25%
*: times

A = 90 – 100
B = 80 – 89
C = 70 – 79
D = 60 – 69
F = 59 and below.

Response Time

I will respond to email questions within one business day. Assignments and exams will be graded within one week after the due day.

Missed/Late Work

No late work will be accepted. Assignments and exams are posted early with reasonable deadlines to provide adequate time to complete them.

Participation/Absenteeism

Besides the slides and SmartBook readings, lectures for each chapter are recorded and posted on Blackboard. Although there is no grade for participation, regular access of the slides, readings, and recorded lectures make you learn better and excel in this course. Exams are based on the recorded lectures. You can see me in person, email or webex me to ask any questions about these course materials. Research has shown that students, who regularly attend classes, generally perform better.

Exams

Exams are open lecture recordings, open book, and open notes on Blackboard. However, no collaboration is allowed.

Homework

Homework will be McGraw-Hill Connect SmartBook readings. The due days are detailed on pages 7 and 8 of the syllabus. The due time is always <u>11:59 PM (CST) on the due day.</u> No collaboration is allowed.

Course Policies

Academic Honesty and Integrity

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding and complying with the university Academic Honor Code, which is in both print and web versions of the ASU Student Handbook.

Academic integrity is expected. This includes, but is not limited to, any form of cheating, plagiarism, unauthorized sharing of work, or unauthorized possession of course materials. The professor assumes that all students can be trusted. Please do not violate this trust. Violation of academic integrity will result in a failing grade for the course.

It is the professor's intention to be as fair and impartial as is humanly possible. Therefore, all students will be asked to adhere to the same set of guidelines and rules UNLESS there are disabilities or documented extenuating circumstances that have been discussed with the professor and the Student Life Office. Please make sure you inform the professor as soon as any situation arises. Do NOT wait until the problem is compounded by poor class performance, poor attendance, etc.

Plagiarism

Plagiarism is a serious topic covered in ASU's Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

Code of Ethics

Students, faculty, administrators and professional staff of the Norris-Vincent College of Business should always:

- Be forthright and truthful in dealings with all stakeholders
- Take responsibility for one's actions and decisions
- Serve as an example of ethical decision-making and behavior to others
- Admit errors when they occur, without trying to conceal them
- Respect the basic dignity of others by treating them as one would wish to be treated

Courtesy and Respect

Courtesy and respect are essential ingredients to this course. We respect each other's opinions and respect others points of view at all times while in our class sessions. The use of profanity and harassment of any form is strictly prohibited (Zero Tolerance), as are those remarks concerning one's ethnicity, life style, religion, etc., violations of these rules will result in appropriate disciplinary actions.

Accommodations for Disability

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by emailing studentservices@angelo.edu, or by contacting:

Mrs. Dallas Swafford
Director of Student Development
Office of Student Affairs
University Center, Suite 112
325-942-2047 Office
325-942-2211 FAX
Dallas.Swafford@angelo.edu

Title IX at Angelo State University:

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance. This is done in order to connect students with resources and options in addressing the allegations reported. As a student, are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Title IX Coordinator. You may do so by contacting:

Michelle Miller, J.D.
Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.miller@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.

If you are wishing to speak to someone about an incident in confidence you may contact the *University Health Clinic at 325-942-2171*, *Counseling Services at 325-942-2371* or the *ASU Crisis Helpline at 325-486-6345.*

The Office of Title IX Compliance also provides accommodations related to pregnancy (such as communicating with your professors regarding medically necessary absences, modifications required because of pregnancy, etc.). If you are pregnant and need assistance or accommodations, please contact the Office of Title IX Compliance utilizing the information above.

For more information about Title IX in general you may visit www.angelo.edu/title-ix.

Student absence for religious holidays

As stated in the Angelo State University Operating Policy and Procedures (OP 10.19 Student Absence for Observance of Religious Holy Day), a student who intends to miss class to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

Course Drop

To view information about how to drop this course or to calculate important dates relevant to dropping this course, you can visit http://www.angelo.edu/services/registrars_office/course_drop_provisions.php.

Incomplete as a Course grade

As stated in the Angelo State University Operating Policy and Procedure (OP 10.11 Grading Procedures), the grade "I" is given when the student is unable to complete the course because of illness or personal misfortune. For undergraduates, an "I" that is not removed before the end of the next long semester automatically becomes an "F". A graduate student will be allowed one year to remove a grade of "I" before it automatically becomes an "F". To graduate from ASU, a student must complete all "I's".

Grade Appeal Process

As stated in the Angelo State University Operating Policy and Procedures (OP 10.03 Student Grade Grievances), a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, has experienced inequitable evaluation procedures, or inappropriate grading practices, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the grade appeal process and the number of days allowed for completing the steps in the process, see Operating Procedure 10.03 at: http://www.angelo.edu/content/files/14196-op-1003-grade-grievance.

Course Outline

Week			Topic	Sections	Detail	SmartBook (SB) DUE
MGMT2331-DF1 Asynchronous Online 01/18/2022 – 03/11/2022						
1	01/18/2022	T	Chapter 1 – Introduction to Business Statistics	1.1, 1.2, 1.3, 1.4, 1.6	Why? Population vs. Samples, Measurement Scales, Copy/paste, Excel formula	
	01/19/2022	W	Chapter 2 – Descriptive Stats – Tables and Graphs	2.1, 2.2, 2.5, 2.6, 2.7	(Relative) Frequency Distribution, Histograms, Tables (and Slicers), PivotTables, Frequency() formula, Scatterplot, slope(), intercept(), equation, R2, predicting	
	01/21/2022	F	Blackboard Collaborate Recording		Chapter 1, Chapter 2	
2	01/24/2022	M	Chapter 3 – Descriptive Stats – Numerical Methods	3.1, 3.2, 3.3, 3.4, 3.5	Mean, median, mode, range, standard deviation, variance, empirical rule, z-score, percentiles/quartiles,	

					box-and-whiskers, Correlation and Least Squares Line, Weighted means and grouped data	
	01/26/2022	W	Chapter 4 – Probability	4.1, 4.2, 4.3, 4.4	Probability – determining? Experiments/samples spaces/events Probability rules, Venn diagrams, Conditional probability and multiplication rule	**SB-Chapter 1** **SB-Chapter 2**
	01/28/2022	F	Blackboard Collaborate Recording		Chapter 3, Chapter 4	
3	01/31/2022	M	Chapter 6 – Discrete Random Variables	6.1, 6.2, 6.3	Random Variables, Discrete vs. Continuous, Discrete Probability Distributions, Binomial Distribution	
	02/02/2022	W	Chapter 7 – Continuous Random Variables	7.1, 7.2, 7.3	Continuous Probability, Uniform Distribution, Normal Distribution	**SB-Chapter 3** **SB-Chapter 4**
	02/04/2022	F	Blackboard Collaborate Recording		Chapter 6, Chapter 7	
4	02/07/2022	M	Blackboard Collaborate Recording		Midterm review Work on midterm	
	02/09/2022	W			Work on midterm	**SB-Chapter 6** **SB-Chapter 7**
	02/11/2022	F			Work on midterm	
5	02/14/2022	M	Chapter 8 – Sampling Distributions	8.1	Sampling Distribution of Sample Mean, Central Limit Theorem	
	02/16/2022	W	**Midterm online Blackboard due 11:59 PM Central Time**			
	02/18/2022	F	Blackboard Collaborate Recording		Chapter 8	
6	02/21/2022	M	Chapter 9 – Confidence Intervals	9.1, 9.2, 9.3	Confidence Interval for a population mean (sigma known); z-distribution Confidence Interval for a population mean (sigma estimated); t-distribution, Sample Size	

	02/23/2022	W	Chapter 10 – Hypothesis Testing	10.1, 10.2, 10.3, 10.7	Testing Steps, Null vs. Alternative, Testing Errors; Z test on population mean, sigma known; t test on population mean, sigma estimated; Variance test	**SB-Chapter 8**
	02/25/2022	F	Blackboard Collaborate Recording		Chapter 9, Chapter 10	
7	02/28/2022	M	Chapter 14 – Simple Linear Regression	14.1, 14.3, 14.4, 14.5, 14.7	Scatter plot, Excel Analysis Toolpak, Model Assumptions, Standard Error, Slope and Intercept, Significance Test, Confidence Prediction Intervals, Residual Analysis	
	03/02/2022	W	Chapter 15 – Multiple Regression	15.1–15.6	Multiple Linear Regression, Adjusted R^2	**SB-Chapter 9** **SB-Chapter 10**
	03/04/2022	F	Blackboard Collaborate Recording		Chapter 14, Chapter 15, Final review	
8	03/07/2022	M	SmartBook Due		Work on final	
	03/09/2022	W			Work on final	**SB-Chapter 14** **SB-Chapter 15**
	03/11/2022	F	**Final online Blackboard due 11:59 PM Central Time**			

Notes: M-Monday, T-Tuesday, W-Wednesday, R-Thursday, F-Friday
The last day to drop the course is 5PM Central Time 02/24/2022.