

MGMT 2331 010 – 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 Finite Mathematics & BUSI 1305 Business Computer Applications

Course Technology

ASU Blackboard, MS Office (Excel), McGraw Hill Connect, WebEx (as needed)

Class Meeting Times

MWF 9:00 to 9:50

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: Andrew Tiger, Ph.D.

Title: Dean (interim) of the NVCOB and Associate Professor of Management

Office: RAS 262A

Phone: 325-486-6418

E-Mail: atiger@angelo.edu

Office Hours: MWF 10:00 to 11:00 and by appointment

Course Objectives

Learning Objectives:

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

1. Define common statistical terms.
2. Identify different types of data and the applicable statistical techniques to summarize and use such data depending upon the situation.
3. Use computer software, MS Excel, to generate statistical output.
4. Apply basic probability concepts.
5. Create confidence intervals and test statistical hypotheses.
6. Compute and interpret the results of bivariate regression and correlation analysis for explaining the relationship among variables.

Assessment Methods

Attendance, exams (midterm and final), and homework assignments will be used to assess learning in this course.

Course Textbook and Required Readings

Business Statistics & Analytics

Author: Bowerman

Edition: 9th

Link: <https://connect.mheducation.com/class/a-tiger-fall-2021>

Grading Policies

This course employs the following to measure student learning.

Grade Calculations	Percent of Grade	Due
Attendance	3%	Daily
Connect reading assignments	25%	Weekly
Excel assignments	25%	Weekly
Test 1 (Low Stakes)	2%	March 2, 9:00 to 9:50
Midterm	20%	March 7 and 9, 9:00 to 9:50
Final	30%	May 11, 8:00 to 10:00

Angelo State University employs a letter grade system. Grades in this course are determined on a percentage scale:

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, and homework will be graded and posted within one week after the due date.

Missed/Late Work

No late work will be accepted. Assignments are posted early with reasonable deadlines to provide adequate time to complete the homework.

Participation/Absenteeism

Attendance is required.

Final Exam

Exams are comprehensive and open book. No collaboration is allowed. Exams will be a combination of (1) multiple choice (and true/false) and (2) solving statistical problems in Excel.

Homework

Homework will be a combination of reading assignments and Excel-based problems submitted through Blackboard. On the due date, homework is always due by 9:00 AM before class begins.

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.

Norris-Vincent Code of Ethics

Students, faculty, administrators and professional staff of the 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 Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center,

Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website at www.angelo.edu/ADA. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

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

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. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: <http://www.angelo.edu/incident-form>
Face to Face: Mayer Administration Building, Room 210
Phone: 325-942-2022
Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please 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/registrar_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	Date	Day	Topic	Sections	Detail	Smart Book HW	Excel HW	
1	1/17	M	No class on 1/19 MLK					
	1/19	W	Introductions, Syllabus, Connect, Chapter	1.1, 1.2, 1.3,	Why? Population vs. Samples,			
	1/21	F	1, Excel copy/paste	1.6	Measurement Scales, Formula, Copy/Paste			
2	1/24	M	Chapter 2 - Descriptive Stats - Tables and Graphs	2.1, 2.2	(Relative) Frequency Distribution, Histograms, PivotTables			
	1/26	W				SB1	Excel 1	
	1/28	F						
3	1/31	M	Chapter 3 - Descriptive Stats - Numerical Methods	3.1, 3.2, 3.3, 3.5	Mean, median, mode, range, standard deviation, variance, empirical rule			
	2/2	W				SB 2	Excel 2	
	2/4	F						
4	2/7	M	Scatterplots, correlation, and regression	2.6, 3.4	Scatterplot, slope(), intercept(), equation, R2, predicting			
	2/9	W				SB 3	Excel 3	
	2/11	F						
5	2/14	M	Chapter 6 Discrete Random Variables	6.1, 6.2, 6.3	Probability, Random Variables, Discrete vs. Continuous, Discrete Probability Distributions, Binomial Distribution			
	2/16	W					Excel 2/3	
	2/18	F						
6	2/21	M	Chapter 7 - Continuous Random V's	7.1, 7.3	Normal Distribution			
	2/23	W				SB 6	Excel 6	
	2/25	F						
7	2/28	M	Exam 1 Review					
	3/2	W	Exam 1				SB 7	Excel 7
	3/4	F	Exam 1 Debrief and Midterm Review					
8	3/7	M	Midterm Day 1					
	3/9	W	Midterm Day 2					
	3/11	F	No class					
9	3/14	M	Spring Break					
	3/16	W						
	3/18	F						
10	3/21	M	Chapter 8 - Sampling	8.1	Random Sampling, Sampling Distribution of Sample Mean, CLT			
	3/23	W				SB 8		
	3/25	F	Chapter 9 - t-distribution, confidence Intervals & sample Size	9.1, 9.2, 9.3	Confidence Interval for a population mean (sigma estimated); sample size			
11	3/28	M	Chapter 9 - t-distribution, confidence Intervals & sample Size	9.1, 9.2, 9.3	Confidence Interval for a population mean (sigma estimated); sample size			
	3/30	W				SB 9	Excel 8	
	4/1	F						
12	4/4	M	Chapter 10 - Hypothesis Testing	10.1	Testing Steps, t test on population mean, sigma estimated			
	4/6	W					Excel 9	
	4/8	F	Chapter 11 - Testing Based on Two Samples	11	Two Means - Independent Samples, Paired samples			
13	4/11	M	Chapter 11 - Testing Based on Two Samples	11	Two Means - Independent Samples, Paired samples	SB 10	Excel 10	
	4/13	W	Chapter 12 - ANOVA	12.2	More than 2 means			
	4/15	F	No class				SB 11	Excel 11
14	4/18	M	Chapter 13 - Chi-square Tests	13.2	Chi-square test for independence			
	4/20	W				SB 12	Excel 12	
	4/22	F	Chapter 14 - Simple Linear Regression	14.1, 14.2, 14.4	Review of scatter plot, Data Analysis Add-In for Regression, test slope = 0			
15	4/25	M	Chapter 14 - Simple Linear Regression	14.1, 14.2, 14.4	Review of scatter plot, Data Analysis Add-In for Regression, test slope = 0	SB 13	Excel 13	
	4/27	W						
	4/29	F	Chapter 15 - Multiple Regression	15.1, 15.2, 15.3	Multiple Regression, F-test, R2, and Adjusted R2			
16	5/2	M	Chapter 15 - Multiple Regression	15.1, 15.2, 15.3	Multiple Regression, F-test, R2, and Adjusted R2	SB 14	Excel 14	
	5/4	W	Final Review					
	5/6	F					SB 15	Excel 15
17	5/9	M	Final Exam, 5/11, 8:00 AM to 10:00 AM					
	5/11	W						
	5/13	F						