MGMT 3332 – Data Analytics

Course Description/Overview

This course teaches the fundamental concepts of data analytics and provides vital tools in understanding how data analysis works. In this course you will learn the basic functions to organize data, visualize data and essentials of statistics to analyze data using Excel. We hope this helps you build on your data analysis foundation. Each week you will build on your excel skills and be provided an opportunity to practice what you've learned. Please note, the content in this course was developed using a Windows version of Excel.

<u>Course Technology</u> Use of Blackboard and Internet resources.

<u>Technical</u> Support The Technology Service Center (TSC) may be contacted by calling (325) 942-2911 or toll free at (866) 942-2911 or by email at <u>helpdesk@angelo.edu</u>

Faculty/Instructor Information

Instructor: Jun Huang

Department: Management and Marketing

Office: RAS 208

Phone: (325) 486-6610

Email: jun.huang@angelo.edu

Office Hours: Tuesday & Thursday 2:00 pm - 3:00 pm, Wednesday 2:00 pm - 5:00 pm Other times by appointment

Course Objectives

After successfully completing this course you will be able to:

- explain what data analytics is and give examples on how data analytics could help managers to make better decisions and companies operate more efficiently.
- clean, organize, and manipulate data with data preprocessing techniques in Excel.
- create different types of graphs and charts to visualize data and deliver your findings to the audiences efficiently.
- use descriptive statistics to summarize data with statistical functions and ToolPak in Excel.
- conduct predictive analysis to make prediction with different forecasting techniques in Excel.

Method of Assessing Learning Outcomes

Core student learning outcomes will be assessed through assignments and exams.

Course Textbook

James R. Evans, Business Analytics: Methods, Models, and Decisions, THIRDEDITION. Pearson/Prentice-Hall. MyLab with eText 18 week access: 9780135962817

Course Policies

Attendance Policy

You are expected to attend class each week. Please let me know if you will be missing class. More than 2 absences will affect your Attendance/Participation score.

3 to 7 absences: You will lose 20 points with every absence.

8 absences: Your final grade is dropped by a letter grade.

8+ absences: You will receive an "F" for the term.

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 and 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 don't violate this trust. Violation of academic integrity will result in a failing grade for the course.

Accommodations for Disability

As stated in the Angelo State University Operating Policy and Procedure (OP 10.15 Providing Accommodations for Students with Disabilities), the Student Life Office 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 contacting the Student Life Office at (325) 942-2191 or (325) 942-2126 (TDD/FAX) or by e-mail at <u>Student.Life@angelo.edu</u> to begin the process. The Student Life Office will establish the particular documentation requirements necessary for the various types of disabilities.

Student Absence for Religious Holidays

As stated in the Angelo State University Operating Policy and Procedure (OP 10.19 Student Absence for Observance of Religious Holy Day), a student who intends 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. 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 Procedure (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, equitable evaluation procedures, or appropriate grading, 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 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.

Grading Policies

This course employs the following to measure student learning:

Assignments	50%
Exam 1	20%
Exam 2	20%
Attendance	10%
Total	100%

Your grade will be determined by following grading scale:

90 -	100 = A
80 -	<90 = B
70 -	< 80 = C
60 -	<70 = D
	< 60 = F

Final Grade = Average of Assignments \times 50% + Exam 1 \times 20% + Exam 2 \times 20% + Attendance \times 10%

(Grades of each assignment, exam, and attendance are all 100 points based)

Assignment

All the assignments are individual based. Sharing and submitting the same file claiming as the collaborative effort is unacceptable and will NOT receive any credit for the assignment.

Exam

The exams must be completed *individually* in 90 minutes. However, you can use the written or printed notes that you created for each topic during the exam. Please keep in mind that being prepared and taking the exams during the allocated times is your responsibility. The exam dates can be found in the course schedule below and I urge you to mark them on your calendar now. Missing a scheduled test without approval will result in a zero for the exam.

Expectations: I expect you to

- keep up with the material covered every week
- complete your assignments on time every week
- participate actively and courteously in the forums
- abide by the standards of academic honesty and student code of conduct
- seek help when you don't understand a topic

Date	Class Activity
Jan. 18	Course Introduction
Jan. 20	Chapter 1 Introduction to Business Analytics
Jan. 25	Chapter 2 Database Analytics
Jan. 27	Lab Session
Feb. 1	Chapter 2 Database Analytics cont.
Feb. 3	Lab Session
Feb. 8	Chapter 3 Data Visualization
Feb. 10	Lab Session
Feb. 15	Chapter Review
Feb. 17	Exam 1
Feb. 22	Chapter 4 Descriptive Statistics
Feb. 24	Lab Session
Mar. 1	Chapter 4 Descriptive Statistics
Mar. 3	Lab Session
Mar. 8	Chapter 8 Trendlines and Regression Analysis
Mar. 10	Lab Session
Mar. 22	Chapter 8 Trendlines and Regression Analysis cont.
Mar. 24	Lab Session
Mar. 29	Chapter 8 Trendlines and Regression Analysis cont.
Mar. 31	Lab Session
Apr. 5	Chapter Review
Apr. 7	Exam 2
Apr. 12	Group Discussion on a Data Analytics Case
Apr. 14	Lab Session

Course Schedule

Apr. 19	Power Query Basics
Apr. 21	Lab Session
Apr. 26	Power Query Basics
Apr. 28	Group Assignment
May 3	Group Assignment
May 5	Course Wrap-up