

MGMT 6303 – Advanced Data Analytics

Course Description/Overview

In this course, you will learn how to use Microsoft Excel to manipulate, summarize, visualize, and analyze data in practical business situations. Students will learn to apply basic business analytics principles, and effectively use and interpret analytic models to make better business decisions. We will explore Excel as a tool for solving business problems. 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 2013 or later version. You can download Microsoft Office 365 for free from Angelo State university at <https://www.angelo.edu/administrative-support/information-technology/support/o365/>

Course Technology

Use of Blackboard and Internet resources.

Technical 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 helpdesk@angelo.edu

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 (WebEx meeting)

Course Objectives

Students who complete this course 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.
- develop different types of graphs and charts to visualize data and clearly communicate your findings to audiences.

- use descriptive statistics to summarize data with statistical functions in Excel.
- perform predictive analytics using linear regression analysis in Excel.
- perform what-if and simulation analyses.

Method of Assessing Learning Outcomes

Core student learning outcomes will be assessed through Assignments, a presentation, a midterm exam and a final exam.

Course Textbook

No Textbook required. All course materials are located on Blackboard and will be released weekly under Lessons/Units/Modules.

Optional

Evans, Business Analytics: Methods, Models, and Decisions, SECOND EDITION.
Pearson/Prentice-Hall © 2016. ISBN 13: 978-0-321-99782-1.

Grading Policies

This course employs the following to measure student learning:

| | |
|-------------------------|------------|
| Assignments & Exercises | 40% |
| Final Project | 20% |
| Midterm Exam | 20% |
| <u>Final Exam</u> | <u>20%</u> |
| Total | 100% |

Your grade will be determined by following grading scale:

90 – 100 = A
80 – <90 = B
70 – <80 = C
<70 = F

Final Grade = Average of Assignments & Exercises × 40% + Final Project × 20% + Midterm Exam × 20% + Final Exam × 20%

(Grades of each assignment, presentation, midterm exam, and final exam are all 100 points based)

Course materials and Assignments

Course materials and assignments are posted on Blackboard. The assignments must be completed **individually** and submitted to Blackboard on Sunday by 11:59 PM (CST). You can

discuss the problems in the Part 1 assignment with others. However, you **MUST** work on the Part 2 assignment individually. 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 will be online and must be completed *individually* in 150 minutes. While taking the exam, you can NOT open any files other than the file that you download for the exam. 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. ***Cheating of any sort on exams is never tolerated for this class.***

Final Project

You can pair up with two other classmates to form a group of three in preparing a presentation. You can find the instruction and rubric of the final project on Blackboard.

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

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 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 Student.Life@angelo.edu 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/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. 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>.

Course Schedule

| Date | Class Activity |
|----------------------------|---|
| Week 1 (Jan. 18 – Jan. 23) | Topic 1: Excel Basics Functionality |
| Week 2 (Jan. 24 – Jan. 30) | Topic 2: Vlookup & Data Cleansing |
| Week 3 (Jan. 31 – Feb. 6) | Topic 3: Logic Statements |
| Week 4 (Feb. 7 – Feb. 13) | Prepare for the Midterm Exam on Feb. 13 Case study assignment |
| Week 5 (Feb. 14 – Feb. 20) | Topic 4: Pivot table & Building a model |
| Week 6 (Feb. 21 – Feb. 27) | Topic 5: Index-Match&Solver&What-if&Simulation Topic 6: Charting in Excel |
| Week 7 (Feb. 28 – Mar. 6) | Final Project |
| Week 8 (Mar. 7 – Mar. 11) | Prepare for the Final Exam on Mar. 11 Final project due by 11:59 PM, Mar. 8) |