BUSA 511: Business Analytics for Managers
Summer 2022

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Location: 2066, 8750 NorthPark Central

Office Hours: Mondays: 9 – 11:30 AM (or by appointment).

COURSE INFORMATION

COVID-19 Related

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students' Rights and Responsibilities as a violation of the student Code of Conduct.

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.

Required Textbooks

Business Analytics by Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney & Williams (ISBN-13: 9781337406420; ISBN-10: 1337406422)

COURSE DESCRIPTION

This course provides students an opportunity to understand the underlying framework of business analytics, the role of big data in today's dynamic organizational environment and using analytical models in business operations and decision making. Through a combination of lectures and business case studies, graduate students will learn how big data can support

manager's decision making and how business analytics can be leveraged by organizations to gain a competitive advantage. The case studies explored will illustrate how companies take advantage of different sources of data with different analytical techniques to improve performance, gain an understanding of optimizing results for better decisions, and employing analytical methods to translate data into key insights.

COURSE OBJECTIVES

By the end of this course, students will be able to:

- Learn how big data can support manager's decision making.
- Learn how business analytics can be leveraged by organizations to gain a competitive advantage.
- Learn how companies take advantage of different sources of data with different analytical techniques to improve performance and understand deeper concepts of business analytics.

COB SLO-Course Objective Alignment

COB STUDENT LEARNING OUTCOMES (SLOS)	COURSE OUTCOMES - AFTER SUCCESSFULLY COMPLETING THIS COURSE, STUDENTS WILL BE ABLE TO:	MEASUREMENT METHODS (OUTCOME ASSESSMENTS)
2, 5	• Identify and describe complex business problems in terms of analytical models • Understand and apply statistical concepts and methods of business analytics • Develop models in excel and other analytical tools for various decision-making problems • Interpret results/solutions and identify appropriate courses of action for a given problem • Communicate technical information in the form of visualizations and detailed reports.	• Business Analytics Case Study • Assignments

GRADING

Case Study

The written case analysis is required to include the following:

1. Identify the business problem areas and analyze the problem areas which may include data analysis.
2. Use section headings to organize the written analysis and to make the analysis easier

to follow and read. For example, each of the requirements above should have it's own section heading. Subheadings should be sued for each analysis item or issues identified and subheadings should be used.

3. The written case analysis should be approximately 2-4 papers in length or longer.
4. Late assignments will receive 10% penalty for each day it is late.

Final Grade

At the end of this semester, if your total is between 90 and 100, you will get an A; if it's

between 80 and 89, you will get a B, and so on. **Please note that the actual points will be used to calculate your final grade.** No curving will be used in this class.

Tasks	% of the final grade
Assignments	50
Participation	50

Points	Grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F

TECHNOLOGY REQUIREMENTS

You will need to use Microsoft office tools and Analytics Solver Add-In.

COMMUNICATION AND SUPPORT

If you ask me questions by emails, I will reply within 48 hours. However, I usually answer them much faster.
If you have questions about software operations, please make sure to include the screenshots of the issues in the emails.
All assignment due dates, deadlines, and exam time are central time in the United States.

COURSE AND UNIVERSITY POLICIES

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that

provides comprehensive civil rights protection for persons with disabilities. Among other

things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook).*

Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to ((http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE REQUIREMENTS

The course is AN ONLINE COURSE with Student Responsibilities or Tips for Success in the Course. You are responsible for reviewing all announcements within the course announcements pages, logging on at least 3 times a week, having and responding to all emails, and completing assignments on time, and attending or listening to recorded lectures early in the week. Failure to do these items will adversely affect your grade.

Examples include: Regularly logging into the course website, amount of weekly study and participation time expected, etc.

Please use these tips to be successful.

1. Get the textbook. The textbook will be part of all assignments and you will have to reference specific page numbers.
2. Review all the announcements. Check email daily for any feedback I will provide. However, the email will direct you to further information.
3. Please note due dates are generally Sundays but NOT during the final week.

I anticipate that we will follow the schedule I've outlined in this syllabus, but I may make an adjustment based on what actually happens in the course. I may also change the basis for the course grade (if I need to eliminate an assignment or something of that nature). If I do so, I will so inform you in writing. Remaining in the course after reading this syllabus will signal that you accept the possibility of changes and responsibility for being aware of them.

TENTATIVE COURSE OUTLINE

Module	Topic(s)	Tasks
1	Chapter 1: Introduction	
2	Chapter 2: Descriptive Statistics Chapter 3: Data Visualization	Assignment 1 (01/31/22)
3	Chapter 4: Probability Chapter 6: Statistical Inference	Assignment 2 (02/07/22)
4	Chapter 5: Descriptive Data Mining Chapter 7: Linear Regression	Assignment 3 (02/14/22)
5	Chapter 8 & 9: Time Series Analysis, Predictive Data Mining Chapter 11: Monte Carlo Simulation	Assignment 4 (02/21/22)
6	Chapter 12: Linear Optimization Models Chapter 13: Integer Linear Optimization Models	Assignment 5 (02/28/22)
7	Chapter 14: Nonlinear Optimization Models Chapter 15: Decision Analysis	
8	Final Report Presentations	Case Study (03/07/22)