Marketing and Business Analytics
A&M-COMMERCE

BUSA 497: Data Visualization
Spring 2024

January 10 – May 10: Mondays and Wednesdays, 11:15 – 12:30 AM

8750 N Central Parkway, Dallas, TX

Important: The instructor reserves the right to change the content, format, course schedule, and grading policies of this course if deemed necessary. If and when any changes occur, you will be notified as soon as possible.

All students are required to have their own e-mail accounts to communicate with the instructor and other students. E-mail messages will be returned within 24 hours.

Hours: 3

Course Overview and Objectives

This course provides a real-world project-based experience for students through supervised work experience with organizations under the supervision of a faculty member. Students will work on a project where they will learn to use organizational data, internal and external, to support managerial decision making. An interdisciplinary course the emphasis will be on helping students understand and apply their conceptual learning to address organizational problems collaborating with stakeholders.

At the end of the course the student will be able to:

1. Describe how they applied the concepts they have learned in prior coursework in their program.
2. Communicate insights derived from organizational data to stakeholders through storytelling.
3. Self-assess their opportunities for career growth and academic advancement.
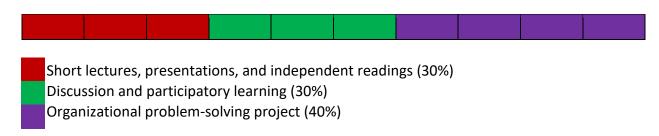
Course Methods

A variety of course methods such as short lectures & presentations, independent readings, discussions, and case analysis etc. will be used, all of which require the student to be an active

participant in the learning process. The focus will be on discussing organizational problem-solving theories, concepts, and strategies. The materials for the discussion will be made available to the students on D2L before the class. Students are expected to read all weekly materials in advance and be prepared to discuss and apply them during the week. The instructor will act as the facilitator in enhancing the learning process.

Course Technology

Students will use Tableau, Microsoft office tools and Analytics Solver Add-In. A 1-year student license for Tableau will be provided.

Course Delivery Methods

🟥 Short lectures, presentations, and independent readings (30%)
🟩 Discussion and participatory learning (30%)
🟪 Organizational problem-solving project (40%)

Evaluation

Assignment: Every week (almost – total of 11) there will be an assignment that provides you with an opportunity to demonstrate your learning of course concepts. This assignment will focus on application of course concepts.

Class participation: A classroom is a community of learners where we learn from each other. You are expected to come prepared with assigned readings and be ready to share your views and insights on the weekly materials being discussed.

Industry project: Scarcity of organizational resources creates challenges for organizational managers when they decide on allocation of resources. This project will help you understand how to allocate organizational resources using evidence-based decision making. Each student will complete an industry project working as part of a team.

Grading

You will begin the class as an entry level professional who needs training to become a consultant who is equipped with the relevant skills to solve organizational problems. The points you accumulate at the end of the course will determine your expertise level at the end of the course.

Percentage	Grade	Expertise
90-100	A	Consultant

80-90	B	Junior consultant
70-80	C	Senior analyst
60-70	D	Analyst
< 60	F	Needs training in organizational problem solving

Course Policies and Instructor Expectations

Students are required to meet the expectations listed below.

- Professional Behavior: It is important that you maintain a professional demeanor at all times, including during "electronic communication". TAMUC expects this from you, as do current and future employers. Since so much communication in the workplace today is electronic, this course will be a good place to practice interacting in a manner appropriate to a professional setting.

- Regular and Timely Participation: You are expected to read all course materials and be prepared to engage in the learning process.

- Assignments:
  - Submitted assignments must be correctly formatted and free of grammatical and stylistic errors. Students in COB 297 should have at least some skill with software for word processing, spreadsheets, databases, graphics, and presentations, and with web browsers and search engines. Spelling and grammatical errors will detract from grade! ○ Assignments must be submitted on time. Assignments are due at the date and time listed. Start working on each assignment as soon as you possibly can so that you can ask questions in a timely manner if needed. If you do not submit assignments on time, I will deduct 3 points per day late.
  - Assignments must be complete. You must complete and submit assignments at the specified due date and time to receive credit for the assignment.
    Please don't submit work that is only "half-finished". ○ Please submit all assignments in a format that is compatible with Microsoft Office. Please save all documents as doc or docx files. Do not submit assignments as PDF documents. ○ Back-ups are required: You are required to back up all your assignments on a disk that can be submitted to me upon my request. If work is lost due to insufficient back-up, you will not have the opportunity to recreate and submit at a later time.
  - Good communication skills are a requirement of all management professionals. Company recruiters consider these skills critical. Therefore, 10% of the grade of any submitted paper or report will be based on its quality. Quality refers to following the required format, order, and layout of the report, the inclusion of graphs and charts where appropriate, and the use of correct grammar, spelling and punctuation. Keep professionalism in mind. Submit your work in the same way you would to your manager in the business world. All submissions are to be typed using Times New Roman, font size 12 and single spaced. Plagiarism will result in an automatic fail.

- E-mail: Students must routinely check e-mail sent to your respective TAMUC email accounts.
- Make-up or late assignments will only be accepted if you obtain university approved documentation for your excuse: There are no make-up assignments for poor performance on a previous assignment.
- Changes to schedule: While I plan to stick to the class schedule, there may be occasions to modify the schedule. In these cases, all changes will be announced by e-mail. It is your responsibility to become aware of any such changes.

STATEMENT ON AI USE IN COURSES [MAY 2023]:

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

Course Tentative Schedule

Week	Topic(s)	Tasks
1	An introduction to the course Organizational problem solving	Assignment 1
2	Fundamentals of data Data collection and processing	Assignment 2
3	An introduction to the course project Project sponsor meeting #1	Assignment 3
4	Fundamentals of data visualizations	Project milestone #1

	Excel Introduction	
5	Visualizations in Excel Project milestone #1 feedback	Assignment 4
6	Tableau Introduction	Assignment 5
7	Dashboards	Assignment6
8	Project sponsor meeting #2	Project milestone #2
9	Advanced Visualizations in Tableau Project milestone #2 feedback	Assignments 7
10	Data Storytelling	Assignment 8
11	Tableau Practice	Assignments 9
12	Project consultation sessions for groups	Project milestone #3
13	Analytics in Excel	Assignments 10
14	Analytics in Tableau	
15	Challenges and Data Ethics	Assignments 1
16	Data Story Final Presentations	Final project report