BUSA 597: Data Visualization

Winter Mini, 2021

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Office Hours: Thursday Mornings (or by appointment).

COURSE INFORMATION

Course Modality

- This course is designated as an online class. All course materials and video recordings of the lectures will be available through D2L.

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.

Recommended Textbooks

Storytelling with Data: A Data Visualization Guide for Business Professionals by Cole Nussbaumer Knaflic (ISBN-13: 978-1119002253; ISBN-10: 1119002257)

Visual Analytics with Tableau by Alexander Loth (ISBN-13: 978-1119560203
ISBN-10: 1119560209)

COURSE DESCRIPTION

In this digital age, it is becoming essentials for people to understand how to leverage data and
generate insights that have the power to change the world. Data Analysis, visualization and storytelling are indispensable skills for communications, engineering, managing and marketing professionals. Student will learn the fundamentals of storytelling concepts, narrative theories, methods for research, cleaning and analyzing datasets, and focus on developing stories using Tableau and other creative data tools.

COURSE OBJECTIVES

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

- Detect stories within data by extracting insights using analytics and visualizations.
- Present data and insights visually to enhance audience comprehension of findings and results.
- Apply best data visualization practices to their work by choosing the right visualization parameters and techniques.
- Develop static visualizations, interactive Dashboards and data stories using Tableau.
- Be an effective data-driven visual storyteller by communicating insights about data in various
- formats, including oral presentations, written reports and interactive visualizations.

GRADING

Project

Each student will select a specific topic to investigate and develop a dashboard using the tools and methods discussed in the course. Deliverables include a presentation of the dashboard and a report.

Assignments

There is an assignment due every week on the topics discussed in the class.

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
Project	45
Participation	5

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

TECHNOLOGY REQUIREMENTS

You will need to use Tableau and Microsoft office tools. A 1-year student license for Tableau will be provided.

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.

TENTATIVE COURSE OUTLINE

Week	Topic(s)	Tasks
1	Statistics - Review Data Visualization Process Problem Identification Data Collection and Processing	Assignment 1
2	Functions, Calculated fields, and parameters Descriptive Statistics Visualizations Data Analysis Dynamic and Interactive visualizations	Assignment 2
3	Dashboards and Data Stories Organizing the Stories Advanced Visualizations Case Studies	Mini Project