GEORGETOWN UNIVERSITY McDonough SCHOOL of BUSINESS

Visualization and Storytelling with Data
Classes: August 11-17 (opening residency)

Semester/Year	Fall 2024
Professor	Robin Dillon-Merrill
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Schedule	
Office Hours	As needed
Course Webpage	Canvas

Course Description

Enormous amounts of data are created every day. Interpretation of descriptive statistics and statistical output is no longer sufficient for supporting robust actionable business decisions. Instead, we should be relying on our understandings of relationships, patterns, and potential insights in large data sets through proper visualization. This course will cover basic ideas about cognition and data visualization including how different types of data and relationships are best presented, how to tell a coherent story with data, and how to ensure that the data accurately supports the story. To facilitate student learning, Tableau will be the primary software used to create visualizations.

Course Objectives

- Successfully articulate best practices in data visualization
- Gain proficiency in Tableau, including data manipulation, visualization creation, and dashboard design.
- Apply critical thinking skills to select appropriate visualization techniques for different data types and scenarios.
- Learn effective communication techniques for presenting and sharing data visualizations.
- Explore advanced features and techniques in Tableau for creating interactive and dynamic visualizations.

Course Materials and Resources

There is no required textbook for this course. The course will rely on a course handout that is posted to Canvas. If you feel like you need an additional reference book, *Practical Tableau* by Ryan Sleeper is a good one.

Software: We will be using Tableau.

Download a free version of Tableau for students at https://www.tableau.com/academic/students

Use your Georgetown email address when applying for a free 1-year license.

- If prompted, upload a picture of your Georgetown Student ID with a valid expiration date.
- Expect the turnaround time for the application to be up to 3 business days. Once approved, you will receive an email with your license key and further instructions.
- If you have not downloaded Tableau prior to the start of class, you can download the free 14-day trial and update the software with the free 1-year license key once you receive it in an email.

Canvas Website: There is a website for the course in Canvas containing required course content. Announcements, handouts, and additional resources will be posted.

Schedule

Pre-Course Work:

1. Download Tableau software (see above).
2. Read "The Unmet Data Visualization Needs of Decision Makers within Organizations" posted to Canvas and complete a short series of questions prior to the start of the residency.

Course Work:
The planned schedule during the residency will be posted to Canvas.

Post-Course Work:
There is an optional extra credit assignment that you can complete after leaving the residency. The extra credit assignment is worth up to 3 percentage points toward your final course grade. It must be submitted by Tuesday following the residency. See Canvas for details.

Adhering to Policies: For the course to be effective and run smoothly, it is essential that you and I strictly follow these course policies. Therefore, please read them carefully and contact me if you have any questions or concerns. By taking this course you are agreeing to follow these policies. I will treat these policies as a contract and to be fair to everyone, will not grant any exceptions.

Grades and Feedback on Assignments: I will post your grades for the assignments and my feedback on Canvas.

Grading Policy: The final grade will be based on graded practice problems, one quiz, one group project, and class participation. The distribution of weights across these is as follows:

Pre-reading quiz: 2%
Practice Problems: 28% (7% each)
One in-class quiz: 35%
Group project: 30%
Individual class participation: 5%
Extra credit: up to 3%

Policy on Grade Appeals: If you believe you have found a grading error in the assignments (unfortunately, they occasionally do happen), *please provide a written request via email within 1 week of the completion of the residency*.

Attendance: Empirical evidence shows that poor performance is strongly correlated with poor class attendance. Please plan your travel and other activities around course deadlines. If you miss any class for any reason, it is your responsibility to let the instructor know and cover the missed class material on your own. Make sure you borrow a classmate's notes. Moreover, if you miss a class, you will miss an opportunity to participate in class discussion.

Assistance: It is your responsibility to keep up and utilize all help and resources available to you. If you find that you are falling behind or you feel that the course is difficult, do not hesitate to seek help.

Live Session Classroom Etiquette, Ethics, and Georgetown University Honor Code: I expect from you the same level of professionalism, both in your approach to work and in the "products" you deliver, as your boss will.

You are expected to be familiar with the Georgetown University Honor System and the Honor code and are bound by requirements. As a faculty member, I am also obligated to report any suspicion related to violations of the Georgetown Honor System. For more details, please see http://honorcouncil.georgetown.edu/. Cheating and plagiarism will not be tolerated. In order to communicate expectations regarding group work vs. individual work, each assignment will be designated a type. Please consult the community standards document, which will indicate the guidelines for each assignment. Please ask me if you have any questions about this.

The syllabus cannot identify all possible solutions which represent honor code violations and is not meant to be comprehensive in this regard. Students are expected to abide by the intent and the letter of the honor code and are required to report any honor code violations that are observed.

For pre-reading and practice problems: discussion is permitted with other students but students submit individual assignments (Type B rules for collaboration from the Community Standards Document).

For the in-class quiz, no discussion of the quiz or assignment is permissible with other students or colleagues (Type D rules for collaboration from the Community Standards Document).

For the group assignment:

- Discussion permitted with designated group, and expected that group members work together to complete the assignment
- Group submits one project/ assignment
- Group members receive the same grade (some adjustments may be made on a person by person basis by the professor based on student feedback, etc.)

(Type A rules for collaboration from the Community Standards Document).

Instructional Continuity:

Please see Instructional Continuity section of the MSBA Student Syllabus Policies document. Deadlines for cases and homework submissions will not be affected by the university closure, unless otherwise notified.

Academic Accommodations:

Please see Academic Accommodations section of the MSBA Student Syllabus Policies document.

Religious Observances:

Please see Religious Observances section of the MSBA Student Syllabus Policies document.

Copyright of Course Materials:

Please see Copyright of Course Materials section of the MSBA Student Syllabus Policies document.

COURSE DELIVERABLES

Pre-reading and quiz:

Please come prepared for the first day of the residency by reading the assigned pre-reading, completing the short quiz, and downloading Tableau to your laptop.

Group project:

The group project for the opening residency will be a case study examined jointly within the two opening residency courses. See separate handout for more details

Graded practice problem sets:

There will be practice problems that students are expected to complete in Canvas using Tableau. All practice problems are due before 9am on Friday of the residency.

In-class quiz:

There will be one graded quiz that students will be expected to complete in Canvas using Tableau and a data set provided. Students will need to submit their Tableau workbook to Canvas. The quiz will occur during class time on Friday.

Individual class participation:

Please come to class well prepared to learn. Your class participation score for the opening residency will reflect your engagement with your group and the class during the residency. You will be expected to attend the presentations for all the final projects for the groups within your section. Part of your class participation will be providing feedback on other student projects.

Time Expectations:
The opening residency is an intensive experience. You are expected to participate in all aspect of the residency.

Max Mean Grade Policy:
The course follows McDonough's graduate school policy of the maximum mean Grade Point Average (GPA) of 3.5.

Netiquette Guidelines
To promote the highest degree of education possible, we ask each student to respect the opinions and thoughts of other students and be courteous in the way that you choose to express yourself. Students should be respectful and considerate of all opinions.

In order for us to have meaningful discussions, we must learn to genuinely try to understand what others are saying and be open-minded about others' opinions. If you want to persuade someone to see things differently, it is much more effective to do so in a polite, non-threatening way rather than to do so antagonistically. Everyone has insights to offer based on his/her experiences, and we can all learn from each other. Civility is essential.