

GRADTDA 5150 Emerging Trends in Data Visualization

Syllabus SP2022

Instructor Contact Information

Name: TBD
Email: TBD
Office Hours: TBD
Course TA: TBD

Course Meeting Information

Method: Online Synchronous 1x week, Asynchronous materials and class recordings
Credit Hours: 3
Meeting Days: Synchronous online via Zoom **R 5:30 - 6:50**, materials and class recordings available asynchronously via Carmen

Course Prerequisites

Course enrollment restricted to graduate students enrolled in MTDA program.

Course Text

Storytelling with Data: A Data Visualization Guide for Business Professionals by Cole Nussbaumer Knaflic - available online via OSU Libraries, Wiley Publishing.

Course Description

This course enables students to explore existing, new and emerging approaches to data visualization, topics and trends in visualization research and their applications. Students will research, analyze, write about, explore and make data visualizations.

Learning Objectives

Upon successful completion of the course, students will be able to:

- Examine and evaluate emerging approaches to visualization;
- Describe the trends of visualization research and practice;
- Facilitate, moderate, and participate in discussion on visualization research topics;
- Articulate and analyze the factors that are prompting changes in visualization;
- Apply new models to your own prototypes of future visualization possibilities;

Course Overview

Using experiential learning approaches, this class will be comprised of readings, discussions, interview conversations with visualization creators, and hands-on visualization prototyping activities.

- **Readings:** The goal of the reading assignments is to discover the landscape of data visualization, familiarize yourself with new terminology and definitions, to learn about new developments in visualization, and to contextualize data visualization research writings through discussion as a way of better understanding where the field is heading.
- **Discussion/Written Responses:** You will hone your skills in discussion and analytical writing about data visualization by preparing responses to readings, prototyping and interviews with data visualization experts.
- **Interview Conversations:** You will have the opportunity to conduct virtual interviews with various experts who are engaged with various and discipline-specific forms of data visualization to organize, understand and enhance their work.
- **Prototyping:** Based on your experiences with visualization tools and techniques in previous class in the MTDA curriculum, you will generate visualization prototypes individually or in teams, depending on the task. Prototypes will be presented and discussed in critique format collaboratively in the class.

Grading Information

Course Projects (points/weight)

1. Dear Data #1 - 10 points / 10% of total
2. Dear Data #2 - 10 points / 10% of total
3. Dear Data #3 - 10 points / 10% of total
 1. How to expand this if you have already done it - futuring how this kind of data might be collected voice, wearables, phone, tracking
 2. Look at Nick Felton - annual reports - data vis so what? smart or interactive in a way that is helpful - quantified self, how do you make it actionable?
4. Interview (group project) - 25 points / 25% of total - what is the structure? research, prep questions, review questions -
5. Data Viz Project - 25 points / 25% of total - use drawing tools in ppt, make one creative unexpected use of a tool or use your own tools to learn more, state what tools are and why you chose it, data sculpture, explicit and open ended for making.
6. Topical Writing - 20 points / 20% of total - make a post and comment on two other posts

Grading Scale

| | |
|----------------|----------------|
| A = 100% - 94% | C+ = 79% - 78% |
| A- = 93% - 91% | C = 77% - 73% |
| B+ = 90% - 89% | C- = 72% - 71% |
| B = 88% - 83% | D+ = 70% - 69% |
| B- = 82% - 80% | D = 68% - 64% |
| | E = 63% - 0% |

Grading Policy

Students will be graded on completion of assigned projects.

'A' level work exceeds all base requirements.

'C' level work simply meets the base requirements set forth for each project.

Work that is 'D' level and below fails to meet any or all of the project's base requirements.

Projects must be completed on time and submitted at the beginning of the class on the day they are due so that these projects can be part of the class critique. Projects submitted after the due date will receive a 2 point score reduction for each class session the project is late.

Credit hours and work expectations:

According to Ohio State policy, for a 3 credit course students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example).

Attendance and participation requirements:

- Live sessions:** Because this is a *synchronous* online course, your attendance is required for each course meeting time. All live, scheduled events for the course are required.
- Participating in synchronous presentations and critiques:** As part of your participation, you should expect to both present your own work and critique the work of your peers for each assignment. Students are expected to participate in class critiques of projects, as well as discussion pertaining to example work.
- Participating in online activities:** You are expected to log in to the course in Carmen every week. (During most weeks you will probably log in many times.)
- Office hours:** Office hours are optional and will be held each week via Zoom or by appointment.

Attendance: Student's score will drop a third of a letter grade (ex. B+ becomes a B) per unexcused absence at synchronous sessions; more than 4 unexcused absences from synchronous sessions will result in a failing grade for the course.

Required Materials

- Visualization tools that you are currently learning to work with (Tableau, R, Excel, Illustrator, etc.) in MTDA courses
- [Microsoft Office 365](#) - included w/ OSU affiliation
- <https://info.flipgrid.com> - no cost with Teams
- NYT subscription - \$1.00/mo with university affiliation

Title IX and Sexual Misconduct

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, attitleix@osu.edu

Diversity and Inclusion

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or atsucidepreventionlifeline.org.

Academic Dishonesty

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

Accommodations for Students with Disabilities

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Personal Safety

The University Escort Service operates until 3am when classes are in session (i.e. not during quarter breaks and University holidays), and will assist OSU students who live off campus as well as on campus. The University Escort Service can be contacted at 614-292-3322, and scheduled pick-ups are taken in advance.