

**ENG 6808, Sec. 1 (19075)- Narrative Information Visualization (3 credits)
Spring 2019 Syllabus**

Instructor: Dr. Sonia Stephens

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Meeting date/time: Th 6:00-8:50 pm in TCH 108

Office hours: W 1:00-2:30, Th 1:00-2:30,
or by appt.

Office location: TCH 256A

In this course, we will explore narrative information visualization, or how to tell visual stories about data. Narrative visualizations engage audiences and tell a story using features like interactive maps, infographics, and timelines. Visualization designers make choices about selecting and representing data, developing a narrative, and shaping their audiences' interpretation of the underlying information. This course is recommended for students who want to learn skills that can be applied to digital humanities, visual communication, science communication, and/or digital history projects. Examples could include mapping Orlando civil rights history, telling a story about trends in social media content, or visualizing the links between different fandoms.

This course has theoretical and hands-on components. You will first explore information visualization from an interdisciplinary perspective, learning how to understand and critique visualizations using rhetoric, critical theory, graphic design, and cognitive science concepts. You will then create a hands-on interactive visualization project using data of your choice. Projects may involve working with text, visuals, numerical data, or map-based data. No specific coding experience is necessary, as several "off-the shelf" tools are available to help build these projects.

Course Objectives:

- To understand theories of narrative information visualization from rhetorical, cognitive, and critical-theoretical perspectives.
- To become familiar with contemporary genres and trends in narrative visualization.
- To gain knowledge about data sources and tools for creating interactive visualizations.
- To develop technical skills for creating interactive visualizations.
- To be able to critique interactive visualization projects' structure and potential effects on audiences.

Required Texts:

- Cairo, *The Functional Art*.
- Kirk, *Data Visualisation: A Handbook for Data Driven Design*.
- Other readings will be shared on our Webcourses site.

General Policies: I expect appropriate classroom behavior at all times. As a matter of common courtesy, please arrive on time prepared to stay for the entire class. Proper classroom conduct also entails creating a positive learning experience for all students; therefore, sexist, racist, homophobic, or other derogatory remarks will not be tolerated. My top priority is to provide a safe environment for learning.

Your participation in class discussions is required and is expected at every class meeting. This is a discussion-based, student-centered class; it only works if you take responsibility for your learning by showing up prepared and engaged. Full preparation includes reading assigned material and writing or thinking about it, as well as bringing course materials to class with you. Attendance is crucial because of the vital role discussion plays in this course and unexcused absences will negatively affect your grade. Absences will be excused in cases of emergency or for prior arrangements of short duration.

All assignments are due by the announced date and time except in the event of a medical or personal emergency, or for one of the following three reasons, which you should notify me about ahead of time:

- Religious holiday (please notify me during the first week of class)
- Authorized UCF/academic events (e.g., athletics, presenting work at an academic conference)
- Legal obligations (e.g., jury duty)

If you have a family or other personal emergency, notify me as soon as possible so that we can discuss potential accommodations. Notifying me of a situation or problem after the fact prevents me from making alternative arrangements. If you are a deployed active duty military student and will need an accommodation for this, contact me as soon as possible to discuss your circumstances.

For non-excused late work, 10% (one letter grade) will be deducted for each 24-hour period late until a grade of F is reached.

Digital devices are fine, as long as they are being used for legitimate class purposes. Cell phones, etc., should be muted before class begins. If needed for a critical situation, inform me before class.

E-mail etiquette: You must have a KnightsMail account and check it regularly. I encourage you to contact me via email or the Webcourses messaging system with questions or concerns about the course. You should expect me to respond within 24 hours, or slightly longer on weekends or holidays. Webcourses allows you to select how often you want notifications of communication to be sent to your regular KnightsMail account. I suggest that you set it to send you notifications of Webcourses email and class announcements right away, so you can read and reply to them in a timely fashion.

I request that you use common-sense e-mail etiquette to demonstrate professionalism: e.g., include a salutation, use full sentences and capitalization, and be sure to sign your name. Use one e-mail account consistently: if I receive an unsigned e-mail from you and do not recognize the e-mail address, I may not respond to your message.

Academic Honesty: All work must be original by you. Undocumented use of another's words, ideas, images, or other media is plagiarism, as is allowing someone else to write or edit your work for you. If you are caught plagiarizing, depending on the severity, you will fail the assignment. You also risk automatically failing the course, disciplinary referral to the appropriate dean, and possible expulsion from UCF. See the UCF Rules of Conduct (osc.sdes.ucf.edu/process/roc) for further information. Papers written for this course may be submitted to Turnitin.com at my discretion.

Financial Aid Activity: In order to document that you began this course, please complete the "Week 1" introductory discussion post by Friday at 4:59 pm on the first week of class, or as soon as possible after adding the course. Failure to do so may result in a delay in the disbursement of your financial aid.

Course Accessibility Statement: UCF is committed to providing access and inclusion for all persons with disabilities. This syllabus is available in alternate format upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. Students who need accommodations must also be registered with Student Accessibility Services, Ferrell Commons 7F Room 187, phone (407) 823-2371, sas@ucf.edu.

Mandatory reporting and UCF Cares: As a professor, I have a mandatory reporting responsibility. This means that if you share information with me about sexual misconduct or crimes that may have occurred on campus, I am required to contact the appropriate UCF student support agency. If you prefer to remain anonymous and are seeking resources or support for yourself, a friend, or a classmate, you can also visit UCFCares.com for free services and information about a variety of student concerns. You can reach a UCF Cares staff member at ucfcare@ucf.edu or call (407) 823-5607 between 8am

and 5pm. If you are in immediate distress, UCF offers counselors 24/7 at (407) 823-2811 (then press #5).

Campus Safety: Emergencies are rare, but if one arises during class everyone will need to work together. In case of emergency, call 911. Every UCF classroom has an emergency procedures guide posted on the wall near the door (online at emergency.ucf.edu/emergency_guide.html). Familiarize yourself with the exits from the building. To stay informed about emergency situations, sign up for UCF text alerts at my.ucf.edu (“Student Self Service” > “Personal Information” > “UCF Alert”). If you have a special need related to emergency situations, please email me or talk to me during office hours. Consider viewing this UCF video about active shooter situations: goo.gl/ygJkky (shortened link).

Copyright: This course may contain copyright-protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, or distribute these items outside of the classroom environment. All copyright materials are credited to the copyright holder.

University Writing Center: The UWC is available for all students to assist with writing. See <http://uwc.ucf.edu/> for details.

Grading

Grading: Your grade will be determined by the following:

- *Class participation (10%):* In-class engagement, peer feedback, discussion preparation, introductory discussion post.
- *Data visualization commentaries (5%):* We will build a class reference and commentary on: 1) insightful or provocative data visualizations, 2) example datasets for potential project use, and 3) tools that may help us construct visualizations.
- *Data log & presentation (9%):* Weeks 2-8; keeping a log of personal data and presenting weekly visualization sketches of those data.
- *Excel-based statistical visualization activity (5%):* Practice with some standard descriptive & inferential statistics and creating charts with quantitative and qualitative data.
- *Project proposal (15%):* Describe your plan for your infovis project, including questions to answer, data sources, type of software/coding to be used, narrative structure, interaction design, and planned appearance. You will need to draw on theory readings to defend your preliminary choices.
- *Project progress report (10%):* Describe what you have accomplished, tasks and challenges remaining, any shifts in execution or modifications, and plans for completion.
- *Information visualization project (18%):* You will research and construct a narrative interactive visualization using data and software of your choice. Possible starting points for this project include a specific dataset, visualization genre, topical situation or question, or theoretical argument. Regardless of starting point, you are expected to give thoughtful consideration to all the aspects of design we cover in the course.
- *Project reflection (18%):* This will be a 10-12 page (double-spaced) scholarly paper describing the empirical construction and theoretical justification for your project.
- *Project presentation (10%):* During our scheduled finals day, you will prepare a presentation of your project’s goals, theoretical background, development process, and final outcome.

Grade Scale (%): 94-100 = A 93-90 = A- 89-87 = B+ 86-83 = B 82-80 = B- 79-77 = C+ 76-73 = C 72-70 = C- 69-67 = D+ 66-63 = D 62-60 = D- >60 = F

No Incompletes or extra credit will be given in this course.

Written Grading Standards:

- An A text is exceptional. It presents sophisticated and significant critique and is guided by a meaningful argument. It contains the required elements of the assignment, is written in an engaging style, is arranged in a logical manner, is memorable, and is visually appealing. It is free of mechanical errors.
- A B text is strong. It contains all required elements of the assignment. It is generally above average in terms of the criteria mentioned above, but falls short of excellence in one or more category. It has only minor mechanical errors.
- A C text is competent. It contains all required elements of the assignment. It is generally average in terms of the major criteria listed above. It has a few mechanical errors.
- Low C or D work is weak. It does not include the required elements of the assignment and it falls below average in terms of one or more of the major criteria.
- F work fails in terms of one or more of these criteria.

Note: *The schedule of readings below is likely to change. Changes to the syllabus or schedule will be made at my discretion and will be announced in class and posted to Webcourses.*

| Week | Date | Topic/activity | Reading | Minor assignment | Major assignment |
|--------|------|-------------------------------------|--|---|--------------------------|
| 1 | 1/10 | intro to course, examples | - | intro discussion post | |
| 2 | 1/17 | journalistic perspective | Cairo Intro-Ch 2 | data log entry | |
| 3 | 1/24 | data narratives | Cairo Chs 3-4 + profiles; Segel & Heer | data log entry; viz example commentary | |
| 4 | 1/31 | perception & cognition | Cairo Chs 5-7; Tversky | data log entry; tool commentary | |
| 5 | 2/7 | process I | Cairo Chs 8-9; Evergreen | data log entry; dataset commentary | |
| 6 | 2/14 | analytical perspective | Kirk Intro-Ch 1 | data log entry <i>*add Kostelnick et al</i> | |
| 7 | 2/21 | process II | Kirk Chs 2-3 | data log entry | |
| 8 | 2/28 | working with data, editorial stance | Kirk Chs 4-5 | data log entry | project proposal |
| 9 | 3/7 | rhetorical perspectives | Hullman & Diakopolous; Kostelnick | statistics activity | |
| 10 | 3/14 | spring break (no class) | - | - | |
| 11 | 3/21 | data representation | Kirk Intro to Part 3 & Ch 6 | - | |
| 12 | 3/28 | interactivity | Kirk Ch 3; Rawlins & Wilson <i>*should be ch 7</i> | - | project progress report |
| 13 | 4/4 | annotation & design | Kirk Chs 8-10 | - | |
| 14 | 4/11 | critique I | Dalton & Thatcher; Dörk et al | - | |
| 15 | 4/18 | critique II | Kirk Ch 11; Drucker & Svensson | - | project & reflection due |
| finals | 4/25 | finals week | - | - | project presentations |

Other deadlines: Drop/swap 1/10; Add 1/11; Withdrawal 3/20