

# **ENG 6808 - Narrative Information Visualization**

Section: 0V91

College of Arts and Humanities

Dean's Office CAH

#### **Course Information**

Term: Spring 2025

**Class Meeting Days:** M

Class Meeting Time: 06:00PM - 08:50PM

**Class Meeting Location:** 

Modality: ∨L

Credit Hours: 3.00

#### **Instructor Information**

Sonia Stephens

Office Location: CNH 256A

Office Hours:

Monday 11:30–12:30, Wednesday 1:30–2:30. My office hours are virtual, so this is when I'll have my personal Zoom meeting room open for you to "stop by" without an appointment: https://ucf.zoom.us/j/3449826637

We can also meet by appointment via Zoom or in person, and you are always welcome to e-mail me with questions.

For our class session Zoom link, see "Zoom" in the class Webcourses sidebar.

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**Email:** Sonia.Stephens@ucf.edu

#### **Course Description**

ENG 6808 CAH-CAH 3(3,0)Narrative Information Visualization: PR: Graduate standing or C.I. Exploration of theory and practice of information visualization, with emphasis on visualization in interactive digital texts. Includes working with large datasets to develop narrative visualizations. Occasional.

Narrative information visualizations—visual stories about data—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.

This course has theoretical and hands-on components. This semester, we will explore connections between space and place by focusing on experiences and interpretations surrounding Lake Apopka. Located west of Orlando, Lake Apopka's complex history and contemporary issues can be understood from perspectives of social and environmental justice, ecological catastrophe and restoration, rapid urbanization and gentrification, and decolonial mapping and counter-mapping movements.

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 work with text, visuals, numerical data, and/or map-based data to develop an interactive visualization project. No specific coding experience is necessary, as several "off-the shelf" tools are available to help build these projects.

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#### **Student Learning Outcomes**

- 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.

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#### **Course Materials and Resources**

The Truthful Art: Data, Charts, and Maps For Communication

Authors: Alberto Cairo
Publisher: New Riders
Publication Date: 2016

The Art of Insight: How Great Visualization Designers Think

**Authors:** Alberto Cairo

**Publisher:** Wiley

**Publication Date: 2023** 

## **Course Assessment and Grading Procedure**

Your grade will be determined by the following:

- *Class participation (5%):* In-class engagement, peer feedback.
- *Discussion posts (12%):* Most weeks, we will have an online discussion and/or activity related to the class reading.
- Data visualization commentaries (6%): We will build a class reference and commentary on 1) data sources that relate to Lake Apopka, 2) insightful or provocative data visualizations, and 3) tools that may help us construct visualizations.
- Data log & presentation (8%): Weeks 4-8; keeping a log of personal data and sharing weekly visualization sketches of those data.

- Project proposal (15%): Describe your plan for your information visualization
  project, including questions to answer, data sources, type of software/coding to be
  used, narrative structure, interaction design, planned appearance, and division of
  labor for team projects. 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 (17%):* 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 (17%):* 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.

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## **Grading Scale**

Letter Grade	Percentage
Α	94-100%
A-	90-93%
B+	87-89%
В	84-86%
B-	80-83%
C+	77-79%
С	74-76%
C-	70-73%
D+	67-69%

Letter Grade	Percentage
D	64-66%
D-	61-63%
F	0-60%

#### **Policies for Course Grade**

#### **Attendance & Late Work Policy**

I expect your participation in class discussions during every class Zoom meeting. Discussion plays a vital role in this course, and unexcused absences will negatively affect your grade. As a matter of courtesy, please log in on time prepared to stay for the entire class.

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 below types of excused absences, which you should notify me about ahead of time.

- Religious holiday (please notify me about this 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 are a deployed active duty military student and will need an accommodation for this, contact me as soon as possible to discuss your circumstances. If you have a family or other personal emergency, notify me as soon as possible. I will work with you on challenges you may be encountering and to provide support to help you succeed. However, please keep in mind that I will hold you accountable in terms of completing assignments.

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. (Note that an F is still 59%, so turning in work in this situation will give you more points than not turning it in at all.)

#### **Expectations for Participation**

This is a discussion-based, student-centered class; it only works if you are prepared and engaged. To facilitate this, I ask that you turn your camera on during discussion. We'll plan to take a 15-minute break about halfway through each class session. While I recognize that interruptions can occur during

at-home videoconferencing, I ask that you try to plan ahead to avoid distractions as much as possible. As a matter of courtesy, do not record class activities without prior written permission from me.

We will also be doing weekly online activities and discussions, and I expect you to check in to these at least once a week outside of our scheduled meetings. Full preparation for class includes reading assigned material and writing or thinking about it, as well as preparing course materials ahead of time. Be advised that we may cover materials in class that are not included on the syllabus; you are responsible for all material covered during your absence.

I expect professionalism in all discussions. Sexist, racist, homophobic, or other derogatory remarks will not be tolerated. My top priority is to provide a safe environment for learning.

#### **Course Authorship and Generative AI Tools**

All work that you submit for this class must be your own, and it must be created exclusively for this course. You may not reuse work you created for another course in this course. Undocumented use of another's words, ideas, data, images, or other media is plagiarism, as is allowing someone else to write or edit your work for you. We will spend some time during the course discussing issues of attribution as they relate to being inspired by another designer's style or specific graphical examples.

You may not use generative writing or image-producing AI tools (including but not limited to ChatGPT, Canva, Dall-E, or Dall-E2) for any assignments in this class, unless we have discussed the possibility of using a particular tool ahead of time and I have explicitly given my agreement per the goals of the assignment.

## **Grade Posting**

Grades in this course will generally be posted in Webcourses within two weeks of assignment submission. Please contact me immediately if you see an error or have a question about your grade or feedback.

## **University Writing Center**

The UWC is available for writing support for all students, via Zoom or in person. See their website for details.

## **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 to notify them about your situation. If you prefer to remain anonymous and are seeking resources or support for yourself or a friend, you can also visit <a href="https://www.ucf.edu.org/">UCF Cares</a> for free services and information about a variety of student concerns. You can reach a UCF Cares staff member at ucfcares@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.

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## **Course Accessibility**

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to course content due to course design limitations should contact the professor as soon as possible. Students should also connect with <a href="Student Accessibility Services">Students Student Accessibility Services</a> (SAS) (Ferrell Commons 185, <a href="sas@ucf.edu">sas@ucf.edu</a>, phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student. Further conversation with SAS, faculty and the student may be warranted to ensure an accessible course experience.

## **Academic Integrity**

Students should familiarize themselves with UCF's Code of Conduct at <u>Student Conduct</u> and <u>Integrity Office</u>. According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

a. Academic misconduct is defined as any submitted work or behavior that obstructs the instructor of record's ability to accurately assess the student's understanding or completion of the course materials or degree requirements (e.g., assignment, quiz, and/or exam). Examples of academic misconduct include but are not limited to: plagiarism, unauthorized assistance to complete an academic exercise; unauthorized communication with others during an examination, course assignment, or project; falsifying or misrepresenting academic work; providing misleading information to create a personal advantage to complete course/degree requirements; or multiple submission(s) of academic work without permission of the instructor of record.

- b. Any student who knowingly helps another violate academic behavior standards is also in violation of the standards.
- c. Commercial Use of Academic Material. Selling of course material to another person and/or uploading course material to a third-party vendor without authorization or without the express written permission of the University and the instructor of record. Course materials include but are not limited to class notes, the instructor of record's slide deck, tests, quizzes, labs, instruction sheets, homework, study guides, and handouts.
- d. Soliciting assistance with academic coursework and/or degree requirements. The solicitation of assistance with an assignment, lab, quiz, test, paper, etc., without authorization of the instructor of record or designee is prohibited. This includes but is not limited to asking for answers to a quiz, trading answers, or offering to pay another to complete an assignment. It is considered Academic Misconduct to solicit assistance with academic coursework and/or degree requirements, even if the solicitation did not yield actual assistance (for example, if there was no response to the solicitation).

#### Responses to Academic Dishonesty, Plagiarism, or Cheating

Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, *The Golden Rule*. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and respond to academic misconduct when necessary. Penalties for violating rules, policies, and instructions within this course can range from a zero on the exercise to an "F" letter grade in the course. In addition, an Academic Misconduct report could be filed with the Office of Student Conduct and Academic Integrity, which could lead to disciplinary warning, disciplinary probation, or deferred suspension or separation from the University through suspension, dismissal, or expulsion with the addition of a "Z" designation on one's transcript.

Being found in violation of academic conduct standards could result in a student having to disclose such behavior on a graduate school application, being removed from a leadership position within a student organization, the recipient of scholarships, participation in University activities such as study abroad, internships, etc.

Let's avoid all of this by demonstrating values of honesty, trust, and integrity. No grade is worth compromising your integrity and moving your moral compass. Stay true to doing the right thing: take the zero, not a shortcut.

#### Title IX

Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at <a href="Let's Be Clear"><u>Let's Be Clear</u></a> and <a href="UCF"><u>UCF</u></a> Cares.

For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:

- Title IX OIE Office of Institutional Equity & askanadvocate@ucf.edu
- Disability Accommodation Student Accessibility Services <u>Student Accessibility</u>
   <u>Services</u> & <u>sas@ucf.edu</u>
- Access and Community Engagement (including the Ginsberg Center for Inclusion and Community Engagement, Military and Veteran Student Success, and HSI Initiatives)
- UCF Compliance and Ethics Office <u>Compliance, Ethics, and Risk Office</u> & <u>complianceandethics@ucf.edu</u>
- The <u>Ombuds Office</u> is a safe place to discuss concerns.

#### Reporting an Incident or Issue

If you believe you have experienced abusive or discriminatory behavior by any faculty or staff member, contact the Office of Institutional Equity online or at 407-823-1336. You can also choose to report using the UCF Integrity Line and can report anonymously or as

yourself at 1-855-877-6049 or using the <u>online form</u>. UCF cares about you and takes every report seriously. For more information see the <u>Reporting an Incident or Issue Webpage</u>.

## **Deployed Active-Duty Military Students**

Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

#### **Campus Safety**

At UCF Public Safety and Police, safety is the top priority. Emergencies on campus are rare, but if one should arise, it's important to be familiar with some basic safety and security concepts.

- In an emergency, always dial 911.
- Every UCF classroom has an Emergency Procedure Guide posted on a wall near the door, which will show you how to respond to a variety of situations. This guide can also be found online <a href="here">here</a>.
- In the event of an active threat, remember **AVOID**, **DENY**, **DEFEND**. Choose the best course of action and act immediately. Watch the video <a href="here">here</a> to learn more.
  - AVOID. Pay attention to your surroundings and have an exit plan. Get as much distance and as many barriers between you and the threat as quickly as possible.
  - DENY. When avoiding is difficult or impossible, deny the threat access to you
    and your space. Lockdown by creating barriers, turning the lights off and
    remaining quiet and out of sight. Make sure your cell phone is silenced, but
    do not turn it off.
  - DEFEND. When you are unable to put distance between yourself and the threat, be prepared to protect yourself. Commit to your actions, be aggressive and do not fight fairly. Do whatever it takes to survive.

For emergencies on campus, UCF will utilize the <u>UCF Alert</u> system. All UCF students, faculty and staff are automatically enrolled to receive these email and text alerts, however, it's a good idea to frequently ensure your <u>contact information is up</u> to date.

## **Financial Aid Accountability**

All instructors/faculty are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete this activity by the end of the first week of classes 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.

#### **Class Schedule**

## Class schedule

Note: Any changes to the syllabus or schedule will be announced via Webcourses email. Assignment due dates are Mondays unless otherwise indicated.

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Cairo books: TA=The Truthful Art; AoI=The Art of Insight

Weel	kDate	Topic/activity	Reading	Minor	Major
weekbate Topiciactivity		, ropic/activity	reading	assignment	assignment
1	1/6	intro to course, examples	Brown (plus online map); Simpson; Kowalchuk (for Fri post)	initial discussion post (1/10, 4:59 pm)	Add/drop/swap 1/10
2	1/13	visualization approaches	Cairo-TA Preface, Introduction, Chapters 1 & 2 (60 pp)	discussion post, Lake Apopka data source commentary	
3	1/20	MLK day (no class)			

Week	Date	• Topic/activity	Reading	Minor assignment	Major assignment
4	1/27	creating visualizations	Cairo-AoI Introduction & Ch. 1 + Cairo-TA Ch. 5 (51 pp)	ndata log entry, viz example commentary	
5	2/3	representationa choices	ICairo-Aol Chapters 2–5 (47 pp)	data log entry, tool commentary	
6	2/10	truth & uncertainty	Cairo-TA Chapters 3 & 4 (44 pp)	data log entry, discussion post	
7	2/17	exploring & framing	Cairo-TA Ch. 6 (15 pp) + Hullman & Diakopolous; D'Ignazio & Klein	data log entry, discussion post	
8	2/24	mapping & water	Cairo-TA Ch. 10 (33 pp); Bodenhamer; Hayman et al; Cattelino	data log entry, discussion post	
9	3/3	building compelling stories	Cairo-Aol Chapters 9 & 10 (23 pp) + Fish	-	project proposal
10	3/10	visualizing data distributions	Cairo-TA Ch. 7 + Cairo-Aol Chapters 7 & 8 & Coda (50 pp)	discussion post	
11	3/17	Spring Break (no class)			
12	3/24	time & relationships	Cairo-TA Chapters 8 & 9 (59 pp) Cairo-Aol Chapters 5	discussion post	Withdrawal 3/28
13	3/31	process & care	6, 11, 16 (37 pp) + Butts & Jones		
14	4/7	humanistic approaches	Cairo-Aol Chapters 13, 15, 17, 19 (41 pp)	-	project progress report

Weel	kDate Topic/activity	Reading	Minor assignment	Major assignment
15	4/14 meeting resistance	Cairo-Aol Chapters 14, 22 (22 pp) + Eichberger	discussion post	
16	4/21 evaluation	Brinch; Ridley & Birchall	-	project & reflection (4/25)
	finals week			project
finals 4/28 (meet 7:00-9:50		) -	-	project presentations
	pm)			presentations

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