GEOSPATIAL HUMANITIES: DIGITAL MAPPING AND CRITICAL GIS

WENDY PERLA KURTZ, PHD
WINTER 2025 - DIGITAL HUMANITIES 131/250-1
MONDAYS 10-12:50

Harold Fisk's Meander Maps of the Mississippi River (1944)

Instructor: Dr. Wendy Perla Kurtz
Class Location: Rolfe 2118
Class Meeting: Mondays 10-12:50
Student Hours: Mondays after class in person (Rolfe 2118) | Tuesdays 11:00-12:00 pm via Zoom | or by appointment
Email: wpkurtz@ucla.edu

COURSE DESCRIPTION

Spatial Humanities, *Geohumanities*, *GIS Humanities*, DH GIS, "deep maps," "digital culture mapping," "cognitive maps," and "the spatial turn" are terms that have grown in popularity over recent years in the humanities and digital humanities. Digital mapping makes it possible to create rich stories of culturally, socially, and historically relevant materials on a cartographic interface, converting a purely geographic *space* into a *place*. Through project-based assignments, we will engage with fundamental mapping practices such as rectifying historical maps, working with open data through web mapping technologies, and creating place-based narratives in order to critique and create location-based visualizations. Students with little to no GIS experience will be exposed to the theories, concepts, and methods used for mapping projects in the humanities and humanistic social sciences. Students with a GIS background will have the opportunity to explore non-traditional uses of mapping systems.

COURSE OUTCOMES AND LEARNING OBJECTIVES

By experimenting with a wide range of tools that employ a variety of data types, students will learn the basics of mapping and geospatial information using GIS. Students will build skills necessary to enhance their spatial thinking and literacy. By learning to manipulate GIS software and generate basic spatial analysis, students will be able to apply spatial research methods to enhance their research in their own subject areas. Students will also learn best practices for planning, managing, and effectuating a collaborative web-based digital mapping project.

EVALUATION CRITERIA

Grading is a points-based system and will be based on your class/laboratory participation, reaction papers, short assignments, and the final project. There are no written exams in the course.

GRADE WEIGHTS

- 10% In Class Participation
    - Attendance is expected and required for all classes and labs. However, if you have an emergency, are ill, or otherwise have to miss class, all lab recordings and links to workshop materials are available on BruinLearn. Come to office hours or schedule a time to cover any missed material.
- 45% Labs and Reflections
    - In order to engage with the theories, technologies, and data types discussed in class and assigned readings, you will complete five small-scale labs and write an accompanying reflection paper (1-3 pages). *You may opt out of one lab without any grade penalty.*
- 45% Final Project and Milestones
    - The final project grade combines the project milestones (55%) and the final project deliverables (45%).
    - Graduate students are encouraged to work on a project related to their research.

Below is a breakdown of the final project elements. See the final project rubric for assignment details.

Milestone 1: Top Dataset Choices (Week 5)	2.5
Milestone 2: Data Critique (Week 6)	10
Milestone 3: Annotated Bibliography (Monday Week 7)	2.5
Milestone 4: Draft Research Questions (Friday Week 7)	10
Milestone 5: Sample Map Visualizations (Week 8)	10
Milestone 6: Website Narrative Draft (Week 9)	10
Milestone 7: Work-in-Progress Presentation (In class Week 10)	10
Final project group score (Due Monday, March 17, by 11:59 pm)	20
Final project individual score	25
Total Points Possible	**100**

For collaborative work, your grade will be determined by your individual contribution and by the overall quality of the project.

GRADING

Work is graded according to the highest professional standards. Grades in percentages are:

- A = 94-100%,
- A- = 90-93%,
- B+ = 87-89%,
- B = 83-86%,
- B- = 80-82%,
- C+ = 77-79%,
- C = 73-76%,
- C- = 70-72%,
- D+ = 67-69%,
- D = 60-66%,
- F = 59% or below

Below is a guideline for how grades are described within this course:

- A, nearly perfect in execution, quality of work is exceptional
- A-, work is impressive in quality, with very few problems in any area
- B+, very good performance, did more than required, might struggle in one area only
- B, solid effort, met all requirements, fair application of skill
- B-, needs a bit more polish, pretty good handle on things overall
- C+, good in one area of work, but consistent problems with another area
- C, followed instructions, seems to understand basics but did the minimum to pass
- C-, has glimpses of potential in a limited range
- D+, did not demonstrate understanding of the basics but tried
- D or F, did not demonstrate effort or understanding of basics, incomplete

LATE SUBMISSIONS

There is a 24-hour grace period for all assignments, no questions asked. Please communicate with me and your project teammates if you become ill or have another emergency.

This course samples several forms of digital mapping, each building on the previous form. If you miss assignments, this building isn't possible. If you have not contacted me about late work before the deadline, your grade will go down by one letter for each day the assignment is late.

STUDENT AND INSTRUCTOR EXPECTATIONS

CLASS DYNAMICS

Our class is a mix of seminars and laboratories, and its success depends on your regular attendance and reliable participation. What does it mean to "attend" and "participate in" class? It means showing up on time to scheduled class, group, and individual meetings; completing the readings; watching lecture recordings before each class session; contributing to group discussions and workshops; and being prepared to engage constructively and respectfully with one another.

Because two hours and fifty minutes is a long time, this class will follow a hybrid format: lectures will be recorded and posted to BruinLearn, and the discussion and labs will be in-person during our Monday sessions. You are expected to complete the assigned readings, prepare for labs, and view any recorded lectures asynchronously before our Monday meetings. We'll engage in both synchronous and asynchronous activities:

Asynchronous:

- You'll complete course readings, screenings of lectures, lab assignments, and group milestones independently.

Synchronous:

- Please check each week's webpage for specific logistical information and links.
- We'll meet in person most weeks during our officially scheduled class time.

READINGS, LECTURES & TECHNOLOGICAL REQUIREMENTS

You are responsible for reading all the assigned materials for class. They will be posted on BruinLearn under the week they are due. Our readings are sometimes difficult and always demanding. You reading our assignments on time is a bottom-line expectation. You should rise to the opportunities of such intellectual challenges, including speaking up in class. Please push yourself and take the intellectual risks necessary to put yourself "out there" in our conversations and your other assignments. Your efforts will be repaid handsomely.

No book purchase is necessary. Our readings will mostly be from online, open-source documents. Links to these will be posted on the syllabus; feel free to read them online, download them to your computer, or print them off so you can annotate them. Keeping up with course reading and video material is crucial, as you will be discussing them with your classmates each week. They will provide a valuable theoretical and practical framework as you begin to work with spatial tools and methodologies.

Because we'll be using a variety of mapping techniques that require an array of tools, you will be required to install software and watch assigned tutorials for each tool and/or method before the designated class. Instructions and guidance are provided on the course schedule. All laptops in our classroom are equipped with the necessary platforms.

WHAT ARE STUDENT HOURS (OR OFFICE HOURS)?

Student hours are times I've scheduled to meet with you each week to discuss anything related to our course. Too often, we're hesitant to ask questions for fear of "looking stupid" or embarrassing ourselves in front of others -- particularly our instructors. We must confront this stigma around clarifying things we don't understand and asking for assistance. This is how learning occurs! Please be assured that I would rather spend some time re-explaining something or helping you get back on track than having to assign you a low score when we could have worked together to turn in quality work.

If you plan to join student (office) hours, please email me in advance and let me know when you're coming and what you'd like to work on. While Zoom drop-ins are always welcome, this will help me better prepare for your questions.

Finally, I ask that you give me 48 hours to reply to any emails and understand that I generally can't respond to messages on evenings and weekends.

OTHER EXPECTATIONS

CREATIVITY: There's a lot of room for curiosity and creativity in digital humanities, and there is no one "right" answer. This course is a place to explore connections between content and technology.

FAILURE: You will be working with disciplinary content and technology that may be unfamiliar to you, and at times, you may struggle with tools or your research material. Often, the most valuable learning happens during this time! The key to success with the technical components of this course (both learning-wise and grade-wise) is to make mistakes and fail as frequently as possible. If you're not, you're simply not trying to push beyond your limitations. Once you fail at something, we'll get you unstuck and moving forward again. Repeating this often will make the course more rewarding, and you'll get a high grade for your effort. I will score your work in this course primarily on process rather than on the final product. Showing us something that doesn't work quite like you want/expect and explaining your steps and what your goal is indicates a level of engagement and curiosity we are all striving towards. You must be able to have fun while totally frustrated, even when everything takes way longer than it should.

RESPECT: You'll be interacting with your classmates in person and an online environment, primarily when meeting in your groups outside of class time. The expectation is that interactions will be respectful, kind, and constructive at all times.

ACADEMIC INTEGRITY: As a student and member of the University community, you are expected to demonstrate integrity in all your academic endeavors. You are evaluated on your own merits. Be proud of your accomplishments and protect academic integrity at UCLA. As specified by University policy, violations or attempted violations of academic dishonesty include, but are limited to: cheating, fabrication, plagiarism, multiple submissions, or facilitating academic dishonesty (See *University of California Policies Applying to Campus Activities, Organizations, and Students, 102.01).* Violations of the academic integrity policy are unacceptable and will not be tolerated. For more information, please visit the Office of the Dean of Students.

GENERATIVE AI / CHATGPT / ETC.: We are entering a very new and fascinating world with the proliferation of AI-enhanced tools for writing and coding. Much like the appearance of Wikipedia in the early 2000s, academia is struggling with whether and how these tools can be used in a classroom setting. For this course, I am interested in what you have to say, your thoughts on the topics, and the work you do for the project. However, if you want to use AI tools, I encourage you to do so lightly;. If they are used, I need a .pdf of the prompt, response, and the edits you made for either text or code. Using AI to brainstorm ideas is permissible but not to produce substantive content. Be VERY cautious with any sources cited by these tools; they are sometimes fictitious or misleading!

COURSE SCHEDULE

This class is responsive to student needs and class interests, which means that some of the readings and themes listed below may change. For the most up-to-date reading and assignment schedule, refer to the course syllabus on BruinLearn.

WEEK 1: INTRODUCTIONS

Olaus Magnus, Carta Marina, 1539

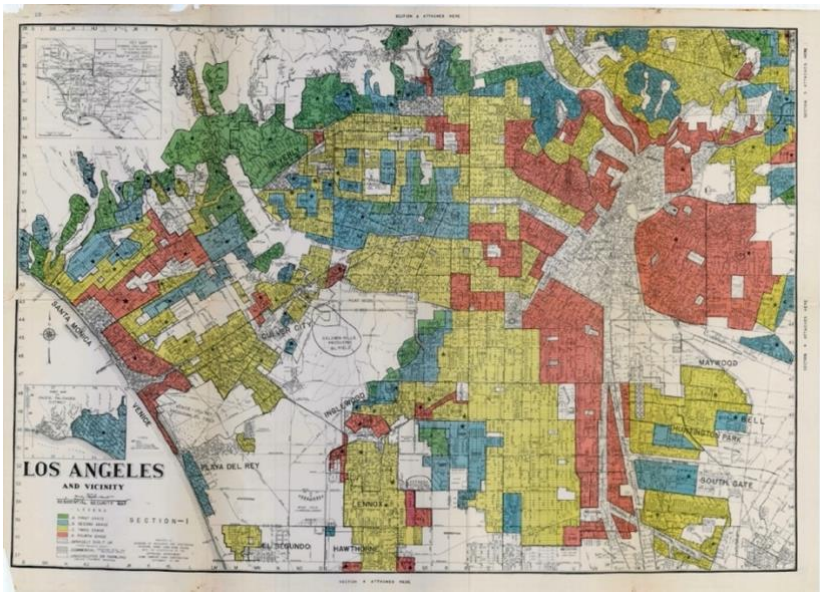
AGENDA

- Welcome!
- Syllabus review & orientation
- Introduction to digital mapping and the humanities

ASSIGNMENTS

- Before our first meeting, upload a map to share with the class (in the discussion forum). Any kind of map! It could be a map of where you're from, where you found yourself during COVID times, someplace meaningful to you, something related to your area of study, etc. Be prepared to share.
- Complete the Preliminary Questionnaire.

WEEK 2: WORKING WITH SPATIAL DATA; MAP TYPES



1939 HOLC "Redlining" Map of Central Los Angeles. *Mapping Inequality: Redlining in New Deal America*

AGENDA

- Introduction to spatial literacy, data types, and formats
- Finding GIS data & data types
- DH mapping projects
- **LAB #1**: Redlining & *The Green Book*

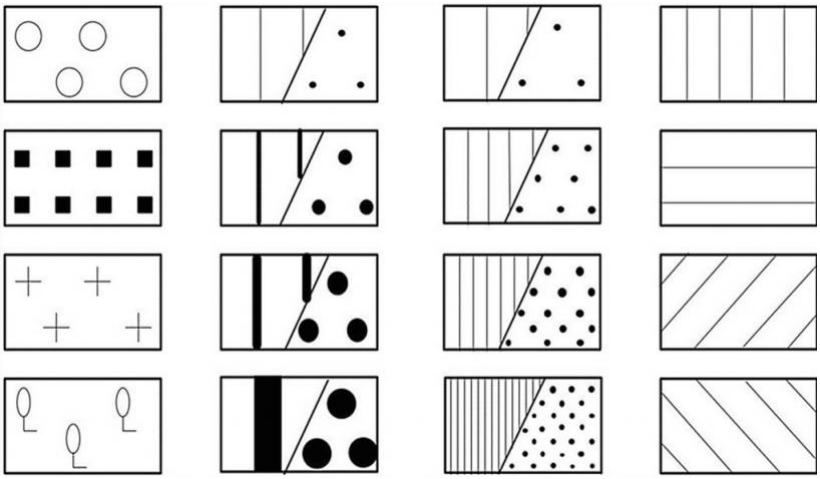
READINGS

- Manson, Steven, Laura Matson. "Maps, Society, and Technology." Chapter 1. *Mapping, Society, and Technology*. Manson, S.M. (ed.) University of Minnesota Press. 2017.
  - Review Library of Congress, "Maps that Changed our World."
- Bodenhamer, et al. "Introduction." *The Spatial Humanities: GIS and the Future of Humanities Scholarship*.
- Nelson, Robert K. et al. "Introduction." *Mapping Inequality: Redlining in New Deal America.*
- Bode, Sarah. "How is Digital Mapping Changing the Way We Visualize Racism and Segregation?" *Forbes*, October 20, 2017.
- Review DH GIS projects (be prepared to discuss in class). See BruinLearn for more details.
- *Optional.* Guldi, Jo. "What is the Spatial Turn?" *Spatial Humanities: A Project of the Institute for Enabling Geospatial Scholarship*. (read the introduction and select two areas of interest – i.e., literature, art history, anthropology, etc.)

ASSIGNMENTS

- **Before class:** Watch lecture on BruinLearn Discussion Forum
- **Lab prep**: Ensure your ArcGIS organizational account is active and ready to use for class this week.
- **Due Friday by 11:59 pm**: Lab #1

WEEK 3: THEMATIC WEB MAPPING (NO CLASS MEETING – *MARTIN LUTHER KING, JR. HOLIDAY*)



Bertin, *Sémiologie graphique. Les diagrammes, les réseaux, les cartes* (1967), Translated to English *Semiology of Graphics Diagrams, Networks, Maps* (1983)

AGENDA

- Introduction to web maps and thematic mapping
- **LAB #2**: Election Swing States

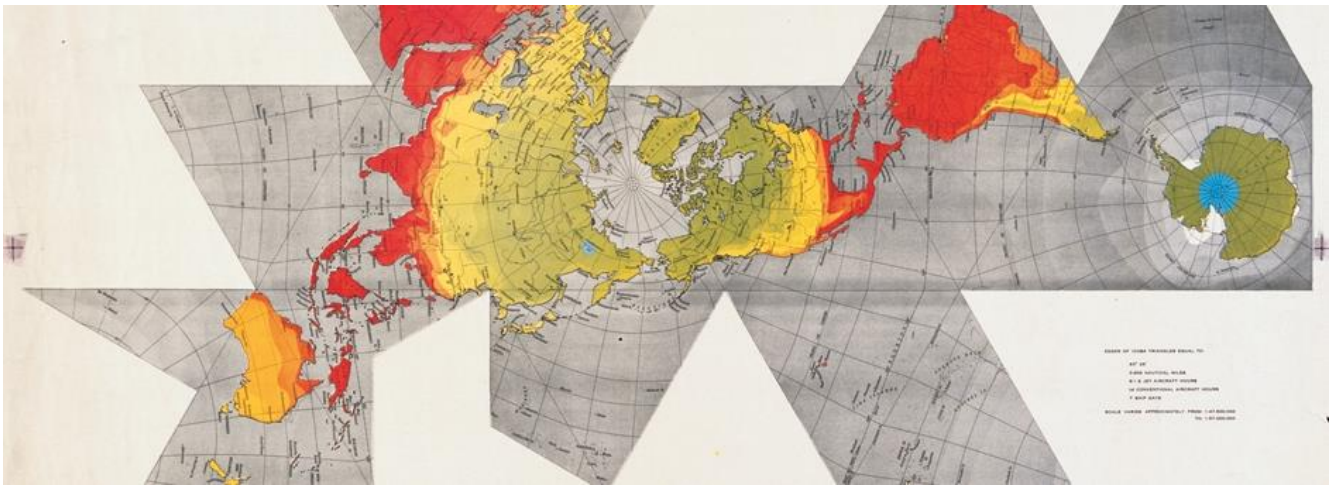
READINGS

- Deluca, Eric, Dudley Bonsal. "Design and Symbolization." Chapter 4. *Mapping, Society, and Technology*. Manson, S.M. (ed.) University of Minnesota Press. 2017.
- PBS NewsHour. "What the Supreme Court's Gerrymandering Decision Means for 2020," June 28, 2019.
- University of California. "Political parties use gerrymandering to counteract shifting voter preferences in key battleground states." September 1, 2022.

ASSIGNMENTS

- Watch lecture on BruinLearn Discussion Forum
- **Due Friday by 11:59 pm**: Lab #2
- Start reading for next week
- Start looking at datasets

WEEK 4: (MIS)REPRESENTATION



Buckminster Fuller, Dymaxion Map, *via BFI*

AGENDA

- Critical mapping, counter-mapping, data feminism, and mapping projections: biased data and mapping inequality
- **LAB #3**: Infant Mortality Rates

READINGS

- Pulido, Laura, et al. "Introduction," *A People's Guide to Los Angeles*, 2012 (**VPN required**) – read the introduction and skim one geographic area of interest (i.e. chapter) from the book.
- Firth, Rebecca. "Can We Call it a 'World Map' if it's missing a billion people?" *Ted*, June 2020.
- D'Ignazio, Catherine, and Lauren F. Klein. *Data Feminism*. MIT Press, 2020. View video discussion for the following chapters at the indicated timestamps:
    - Chapter 1: "The Power Chapter" from 36:08-44:33;
    - Chapter 2: "Collect, Analyze, Imagine, Teach" from 8:33-30:45
- Review Critical GIS projects listed on BruinLearn. *Be prepared to discuss.*
- *Optional*: "Why America's Black Mothers and Babies are in a Life-or-Death Crisis" Villarosa, Linda. *New York Times (Online)*, NY: NY Times. April 11, 2018. (paywall version with photo) UCLA access via Proquest (no photos).
- *Optional*: "What do we know about infant mortality in the U.S. and comparable countries?" Peterson-Kaiser Family Foundation. October 18, 2019.

ASSIGNMENTS

- **Before class:** Watch lecture on BruinLearn Discussion Forum
- **Due Friday by 11:59 pm**: Lab #3

WEEK 5: QUERYING SPATIAL DATA

via *ABC News*

AGENDA

- Classification Methods
- Performing Spatial Analysis
- **Lab #4** Querying Spatial Data for Community Change: Addressing Pedestrian and Bike Safety

READINGS

- Monmonier, Mark. 1991. *How to Lie with Maps*. Chicago: University of Chicago Press, *Intro, Chapter 1, Chapter 3.*
- Deluca, Eric, Sara Nelson. "Lying with Maps." Chapter 7. *Mapping, Society, and Technology*. Manson, S.M. (ed.) University of Minnesota Press. 2017.

ASSIGNMENTS

- **Before class:** Watch lecture on BruinLearn Discussion Forum
- **Due Monday by 11:59pm**: Milestone 1: Top Dataset Choices
- **Due Friday by 11:59 pm**: Lab #4

WEEK 6: DEEP MAPS & NARRATIVE GIS; PROJECT PLANNING

Eanes, Francis R., et al. "Interactive Deep Maps and Spatial Narratives for Landscape Conservation and Public Engagement." *Landscape Journal*, January 2019, 38 (1-2) 7-24; *DOI*.

AGENDA

- Thick maps; Mapping narratives
- Workshop: ArcGIS StoryMaps for Publishing Spatial Narratives
- Finalize datasets for final projects
- Project Management & the Project Planning Process

READINGS

- Presner, Todd, et al. *HyperCities: Thick Mapping in the Digital Humanities*, Harvard UP, 2014, pp. 15-19.
- Harris, Trevor M. "Deep Geography—Deep Mapping: Spatial Storytelling and a Sense of Place." *Deep Maps and Spatial Narratives*, edited by David J. Bodenhamer, et al., Indiana University Press, 2015, pp. 28-51.

ASSIGNMENTS

- **Before class:** Watch lecture on BruinLearn Discussion Forum
- **Due Monday by 11:59 pm**: Milestone 2: Data Critique
- There is no lab due this week. Start reading about your topic and putting together your annotated bibliography due next Monday.

WEEK 7: PROJECT PREPARATION (NO CLASS MEETING – *PRESIDENT'S DAY*)

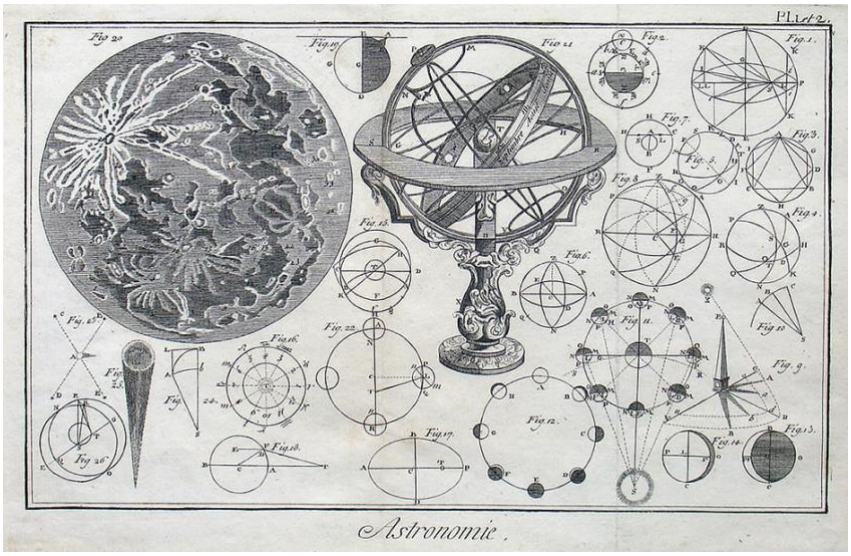
Take this week to focus on your final projects! Your annotated bibliography is due tonight and your research questions are due on Friday. Take advantage of this down week to meet with your group, spend time reading about your topic for the annotated bibliography, write research questions, and maybe even do some exploratory mapping with your dataset to start exploring your research questions.

The recorded lecture will prepare us for Week 8's Lab using QGIS.

ASSIGNMENTS

- Watch lecture on BruinLearn Discussion Forum in preparation for Week 8's lab.
- **Due Monday by 11:59 pm:** Milestone 3 *Annotated Bibliography*
- **Due Friday by 11:59 pm:** Milestone 4 *Draft Research Questions*

WEEK 8: INTRO TO QGIS; GEOREFERENCING



Diderot, Astronomie, 1770

AGENDA

- Introduction to GIS & QGIS; Navigating the dashboard; Geocoding
- **LAB #5**: Georeference scanned and/or historical maps in QGIS; Create and host basemap tiles; Create a thematic map

READINGS

- Rumsey, David and Meredith Williams. "Historical Maps in GIS." *Past Time, Past Place: GIS for History*, ed. Anne Kelly Knowles, 1–18 (Redlands, CA: Esri, 2002).
- "Coordinate Reference Systems." QGIS Documentation. Read 8.1-8.9
- Müller, Boris. "How to Make a Beautiful Map." *Medium*, April 9, 2019.

ASSIGNMENTS

- Watch lecture on BruinLearn Discussion Forum
- Lab prep: Identify and download scanned or historical maps that correspond with your dataset, if relevant
- Lab prep: Install QGIS
- **Due Monday by 11:59 pm:** Milestone 5 *Sample Map Visualizations*
- **Due Friday by 11:59 pm:** Lab #5

WEEK 9: PROJECT WORK

- Hands-on group work

ASSIGNMENTS

- **Due Monday by 11:59 pm:** Milestone 6 *Website Narrative Draft*

WEEK 10: PRESENTING WORKS-IN-PROGRESS

- Milestone 7: Work-in-Progress Presentation
- Hands-on group work

ASSIGNMENTS

- Presentation feedback due by the end of class

Final projects are due Monday, March 17, by 11:59 pm

UNIVERSITY RESOURCES

PRECARITY

Your highest priority should be your well-being and the well-being of your loved ones. We're living in difficult times, and students, staff, and faculty are encountering unprecedented levels of financial hardship, illness, death, housing insecurity, caregiving responsibilities, and so on. Any student facing housing, food, or health challenges that they believe will affect their performance in this course is urged to contact me or CAPS for support and accommodation. We operate best only when our basic needs are first met. If you are struggling with food or housing insecurity, please visit the UCLA Basic Needs services page for resources. I am more than happy to connect you with these resources if you need support!

One of the best strategies you can have is to tackle issues before they become a crisis: it's OK to ask for assistance! If you can't make a meeting or can't get your work done, do your best to let me know as soon as you can so we can make adjustments.

MENTAL HEALTH: COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS)

We all face times when life is particularly challenging, and we need someone to talk to or additional support to cope with stress, grief, and other issues that crop up. Counseling and Psychological Services (CAPS) is here to support your mental health needs as you pursue your academic goals. In addition, Counseling and Psychological Services (CAPS) provides confidential counseling to all students and can be reached 24/7 at (310) 825-0768.

Meditation and mindfulness resources may also be helpful, available here in a number of languages. Take a break when you're feeling stressed and try a meditation exercise.

If you are concerned about a friend, classmate, or other members of the UCLA community, please let a professional know. You may do so anonymously.

ACCOMMODATIONS

To help me better foster your success, please contact the Center for Accessible Education (CAE) if you need—or suspect you may need— accommodations as soon as possible. Regardless of whether you are registered with the CAE, please let me know if you have ideas for cultivating a learning environment more conducive to your success.

ACCESSIBILITY

I value diversity in learning modalities and approaches. To help me better foster your success, please let me know if you have ideas for cultivating a learning environment more conducive to your success. If any resources are inaccessible, please let me know and I will provide alternative formats (for example, reading materials can be converted to mp3 files).

I strive to post grades and feedback quickly; extensions and makeups delay this for everyone. Thus, I will work with you to complete your assignments on time (if necessary, with adjustments), so your early communication with me around accessibility is crucial. Contact the Center for Accessible Education (CAE) if you need—or suspect you may need—additional adjustments as soon as possible. Here is an accessibility map of campus.

TITLE IX

Title IX prohibits gender discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking. If you have experienced sexual harassment or sexual violence, you can receive confidential support and advocacy at the CARE Advocacy Office for Sexual and Gender-Based Violence, 1st Floor Wooden Center West, CAREadvocate@careprogram.ucla.edu, (310) 206-2465. You can also report sexual violence or sexual harassment directly to the University's Title IX Coordinator, 2241 Murphy Hall, titleix@conet.ucla.edu, (310) 206-3417. Reports to law enforcement can be made to UCPD at (310) 825-1491.