PWR 210: Digital Writing with Data

SUNY Cortland, English Department
Spring 2025, Sections 601 & 701
Lab M from 1:50-2:40pm, Class MW 3:00-4:15pm

Instructor: Kati Ahern
Office: Old Main 113-C, katherine.ahern@cortland.edu
Email: katherine.ahern@cortland.edu (the best method for contacting me quickly)
Office Phone: 607-753-4886
Office Hours: 11:30am-1:30pm M, 11:00am-12:00pm Tues, 10:30-12:30 W, and by appointment

Course Description

The course catalog description is as follows: Introduction to the relationship between traditional conceptions of writing and contemporary theories and practices of new media, in particular, when writing with data. Major questions of the course include: how do digital media structure how information is accessed, interpreted, judged and put in context? How do technologies afford and/or constrain how we research and present data? Prerequisite: CPN 101 or 103. Fulfills: GE 12. (4 cr. hr.)

In this course we will confront what it means to read, write, and research with/among/against many possible digital environments. Some of our exploration will focus on the "new" kinds of writing made possible through digital tools and platforms, and some of our exploration will involve planning, design, evaluating data, and the creation of research-based webtexts. Throughout we will question our position in relation to data, empirical design, science and technology research and as researchers, scholars, and citizens of our various "so-called digital" worlds.

GE Category: Science, Technology, Values and Society

The goal of this category is for students to reflect critically on problems that involve ethical or values-based judgments of technical information and issues that arise at the interface of science, technology and society.

GE Student Learning Outcomes:
1. Students will demonstrate an understanding of the manner in which value judgments are justified and how interpretation of technical information can lead to different conclusions.
2. Students will demonstrate an understanding of issues at the interface of science, technology and society and how the methods of science and scientific data are understood in the context of social issues.

PWR Student Learning Outcomes

- Students will demonstrate rhetorical awareness of genre, audience, purpose, and context.

- Students will compose writing that increases the visibility of their work, whether through online environments, publishing, workshops, or other venues inside or outside of the classroom.
- Students will use data to evaluate and make judgements about research.

Writing Intensive Student Learning Outcomes

- Students will undertake an effective writing process, making informed decisions about their writing with input from their instructor.
- Students will write effectively in specific disciplinary genres.

Land Acknowledgment

The work we do is always positioned in place. Therefore, I offer the following land acknowledgement with the understanding that a statement alone is never enough, and we must all actively work to dismantle colonial practices. The work of this class is made possible by our inhabitance at SUNY Cortland, therefore I'd like to acknowledge the land we occupy at Cortland as the traditional, ancestral home of the Haudenosaunee or Iroquois, the People of the Longhouse, and in particular of the Onondaga Nation, whose 2005 Land Rights Action includes the land on which our institution now resides. I take this opportunity to thank the original occupants of this place for their historical and continued stewardship.

Brave Spaces Statement

I promise to . . .

1. **Actively listen to others.** Offer my own viewpoint, but not invalidate another person's viewpoint.
2. **Remain open-minded.** Understand my own privilege and bear witness to others' lived experiences as they present them to the class.
3. **Be present.** Presence may/might/could/has to/should take multiple forms. However, presence has to do with the respect and care we give to each other in this class.

Course Diversity and Inclusion Statement

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course. In order to become a part of a class community, I believe that students must feel that their learning needs are being met. In this course diversity will be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated.

Always we will need respect for others. Thus, an additional aim of our course necessarily will be for us to practice empathy and perspective-taking as we deepen our understandings of multiple perspectives – whatever our backgrounds, experiences, or positions. Our course conversations may not always be easy; we sometimes will make mistakes in our speaking and our listening;

sometimes we will need patience or courage or imagination or any number of qualities in combination to engage our texts, our classmates, and our own ideas and experiences.

[Please see the section on "SUNY Cortland Community Values" (found on page 9) for more information on resources regarding diversity, inclusion, disability, Title IX, and academic integrity.]

Required Materials

All readings for this course are available on our **Brightspace** Course site. You will need access to a computer, internet connection, and a means to save your work.

Contract Grading

Labor-Based (or "work-based") Contract Grading is a system of grading based off the research of Asao Inoue (2015; 2018). It differs from traditional grading in that you do not receive a grade based on the subjective quality of your work, but instead based on the labor (or work) you complete within the course. In other words, you will receive feedback from me, comments, suggestions for revision, encouragement, and support, but you will not receive an "A, B, C, D, or E" based on how "well" you completed the project. Rather, your grade is calculated on a 1,000pt scale based on completion of work or labor.

If you choose to complete **all** the work of the course but NO + parts, the highest grade you can earn is an 85%, 850 pts, or a B. To earn higher than a B you must complete all the work of the class and + parts (additional labor attached to two of our course projects.) However, if you are struggling with a project or assignment, you are still going to earn credit for that labor. The only exception to that rule is that if you do not include all criteria in your required project, you will be given the opportunity to revise or else receive lower than a B based on missing criteria. Similarly, projects over 48 hrs late may be subject to penalty.

In other words, you need to complete the work of the class with the required criteria, within the space of the semester, but you will not be penalized for struggling, taking risks, or generally learning from your journey.

Grading Scale

Your final course grade will be calculated on a 4.0 scale identical to the one listed in the course catalog:
A=4.0; A-=3.7; B+=3.3; B=3.0; B-=2.7; C+=2.3; C=2.0; C-=1.7; D+=1.3; D=1.0; D-=0.7; E=0

The following translates your 1000pt scale (and percentages) to the 4.0 scale and final grades:
100-94% (940-1000 pts) = 4.0 = A
93-90% (900-939pts) = 3.7 = A-
89-87% (870-899pts) = 3.3 = B+
86-84% (840-869pts) = 3.0 = B
83-80% (800-839pts) = 2.7 = B-

79-77% (770-799pts) = 2.3 = C+
76-73% (730-769pts) = 2.0 = C
72-70% (700-729pts) = 1.7 = C-
69-67% (670-699pts) = 1.3 = D+
66-64% (640-669pts) = 1.0 = D
63-60% (600-639pts) = .7 = D-
59-0% (0-599pts) = 0-.3 = E

Assignment Details

Project: Data Design Project…………………………………………..20% (125pts, 75+ parts)
Project: Digital Translation Popular Web Article………………………..15% (150pts)
Popular Web Article (Digital Translation) Presentation………………….5% (50pts)
Project: Scholarly Webtext…………………………………………30% (225pts, 75+ parts)

Research Practices (5) …………………………………………………5% (50pts)
Lab Assignments (15) …………………………………………………15% (150pts)
Community Labor/Participation/Attendance……………………………..10% (100pts)

Description of Project Assignments and + Parts

Data Design Project (20%, 200 possible pts = 125pts for project, 75+parts, 25pts/each)

In addition to finding, understanding, and responding to sources, there will also be times when as a digital writer you must understand (large) sets of data. Although you will not be collecting data for this class formally, this first project will ask you to design a data collection. Your data project must involve the following content within a single-spaced, report format: **1) a question or topic in science or technology** that interests you. This could be something like urban farming, energy usage of large-scale data centers for Generative AI, cooperative strategies of survival for crows, cholesterol management for elderly patients, etc. We will work on narrowing and expanding your topic throughout the course, but for now it helps to have something of deep interest to you. **2)** You will next need a section on **Operationalizing your question/topic into data collection**. (We will go over this in class.) **3)** Then your next section should involve **a table set up and discussion of independent and dependent variables**. **4)** Finally, your last section should involve **a discussion of confounding variables, how the data collected could be used or interpreted in different ways, and what policies or judgements** someone might want to use the data to defend/determine.

The following are 3 possible "+" parts: + = a visualization of any data table of your choice. Include the data table, why you chose that genre of visualization, and how it could be interpreted. (You could also use your own data design if you use "dummy/made up" values for the data. In other words, you wouldn't necessarily be able to collect the height of corn plants using 3 different fertilizers, but you could go through your different variables and assign the dependent variable heights in cm and so forth); + = a 1-pg single spaced comparison of your data design with an article on the same or similar topic involving a data collection. How is your design different? What interpretations does the article make based on the data?; += a 1-pg, single-

spaced discussion of what you would have changed about your design. How was your design connected to class activities and how might your design have been imagined differently? (This is like a traditional revision process discussion.)

Digital Translation Project: Writing a Popular Web Article (15%, 150 pts)

In order to practice presenting and translating research, you will select a single scholarly journal article on any topic in science or technology that you believe the public would benefit from knowing about. It will then be your goal to digitally translate the information within that article to a 1-pg, single-spaced popular science/tech article PDF. This project will allow us to consider how composing choices, selection of writing modes and platforms, and digital delivery of technical information may allow us to reach different audiences. Your popular web article translation must be 1) approximately 750 words, 2) include a title, 3) an image (with credits), 4) a discussion that makes connections in the primary research to what would be relevant to the public and 5) reference and specifically cite information from the scholarly article.

Digital Translation: Popular Web Article Project Presentation (5%, 50pts)

In order to practice communicating with the public and get some late-stage revision feedback, everyone will present their popular web article to the class during week 7. The final popular web article project is not due until Friday of week 7, but the presentation should involve work-in-progress design and content. Makeup will only be possible via VideoNote (in Brightspace) or YouTube link. Presentations will not be accepted late following week 8.

Scholarly Webtext (30%, 300 possible pts =225pts for project, 75+parts, 25pts/each)

For your final project, you will create a cohesive and well-designed webtext: at least 3 pages on your Wix, Weebly, interlocking Google Doc pages, or any other website platform (Wordpress, etc.) (You may choose to work with a linear or forking structure and will link from page to page(s) accordingly.) Your webtext is an in-depth article that must draw on 1) at least 5 sources, 2 of which must be scholarly and must involve data. 2) Your webtext should also include images (and credits), 3) specific in-text citations and references, 4) sections or sub-sections, and 5) a proposed call to action. (In other words, what MUST be done given the research you are presenting?)

The following are 3 possible "+" parts: + = a 1-pg, single-spaced revision discussion—what would you have done differently? Also, how does your webtext compare to one from class, either a peer's webtext or mentor text?; + = a 1-pg, single-spaced connection to one of the class topics and how it helped you in thinking about, researching, and/or designing your webtext. What were the activities of that class topic? How did they help support your process?; + = a 1-minute video introducing your webtext and persuading your audience to read it. (This video can be hosted to YouTube and shared as a link or embedded in the homepage of the webtext itself.)

Research Practices (5%, 50pts, 5 practices at 10pts each)

Research Practices will consist of 1 notecard each week (week 9-13) on a source for your webtext. You may turn your notecard in hardcopy or via a photo to Brightspace. You can turn it

in any time during the designated week Monday-Friday. Your research practice should include the following information: your name, a full citation for the source, summary of the methods and findings of the source, why you think the source is important to your webtext topic/question. (How will it help you answer what should be done?) Also, one short quotation from your source with in-text citation or paraphrased idea with in-text citation.

Lab Work (15%, 150pts, 15 assignments at 10pts each)

There will be lab work assigned for each Monday of lab. The only exception is that in week 7 there will be both Lab #7 and Lab #8. Lab #8 can be turned in at any time up until the Wednesday after Spring Break.

Community Labor, Participation, Attendance (10%, 100pts)

There are a number of ways to be a community member in a course. The "easiest" to understand is attendance. However, attendance is not the only way to prove community membership. Throughout the semester there will surely be challenges, illnesses, extenuating circumstances, etc. One way to account for these difficulties is through communication. That being said, if you miss more than 3 classes, expect that each additional absence is worth 10 pts on your community labor score. These points may be made up with other forms of community labor (such as participation in large group discussion, volunteering for workshop, etc.) We will have 3 check-in points for community labor during the semester so that you are clear about your attendance and community member status. However, if you have 13 or more absences in our class, expect to receive a 0 in community labor.

Generative AI and Writing Policy

The goal of this course is to use your own values and judgement to interpret data and research around issues of science and technology. If you feel that you must use Generative AI as a tool in understanding your topic, research, or data, then please disclose the details of that use (what, why, how) at the end of your assignment. Example: "I had ChatGPT summarize the methods section of my digital translation to check for my own reading comprehension or accuracy." Please do NOT use Generative AI to write or even brainstorm the judgment and reflection portions of any assignments. One of the biggest goals of this class is to think about "given x, y, or z data/findings, what would YOU recommend?"

If You Need More Support

If there is anything I can do to improve your learning experience in this course, please let me know! Also, if you are looking for additional resources there is information listed in the "Community Values" section of this syllabus, as well as links provided here:

The Writing Center: http://www2.cortland.edu/offices/writing-center/
Counseling Services/The Counseling Center: http://www2.cortland.edu/counseling
Disability Services: https://www2.cortland.edu/offices/disability-resources/
Institutional Equity and Inclusion Office: http://www2.cortland.edu/about/diversity/
Title IX: http://www2.cortland.edu/titleix

Starfish: You may see emails from starfish@cortland.edu regarding your academic performance in class as well as any recommendations to support you. To access Starfish, log into myRedDragon and select the Starfish tab to set up your profile.

Course Schedule

Week 1: Understanding the Discourse of Science

1/27 Monday Lab: Welcome, Intro Data activities, Syllabus Q&A
Monday: AIMRAD activities (La Scola and mRNA safety articles)

1/29 Wednesday: Review AIMRAD, Chp. 1 *Writing for the Sciences*

Lab work #1: creating a guide for reading scholarly articles; using Google Scholar to locate an article and try out a guide. (Lab work always due by Friday at 11:59pm of week)

Week 2: Understanding the Discourse of Science

2/3 Monday Lab: p-values, sampling, population and variance
Monday: p-values readings, discussion, vaccine articles, dependent, independent, and confounding variables

2/5 Wednesday: Data project activities

Lab #2: Concepts for discourse of science

Week 3: Understanding the Discourse of Science / Data

2/10 Monday Lab: conditional probability
Monday: Bayesian Theory Readings

2/12 Wednesday: data visualizations (Wordle, sheet music,) visualizing a dataset in Excel (works similar for Google Spreadsheets or Numbers) small dataset example

Lab #3: Your conditional probability hypothetical, calculation, and interpretation

Week 4: Data

2/17 Monday Lab: Interpretation and Brainstorming with Data (CLA rollerblade example)
Monday: 1855 mapping example, Read Chp 8 *Writing for the Sciences*, communicating with public

2/19 Wednesday: Crime Stats Example; data design workshops

Lab #4: Interpreting CLA data

DATA PROJECT DUE 2/21 by 11:59pm

Week 5: Public Communication
2/24 Monday Lab: making accessible documents
Monday: translation activities; Emotion and Public Communication

2/26 Wednesday: translation activities

Lab #5: Writing for the Public

Week 6: Accessibility
3/3 Monday Lab: contrast, linking, fonts, alt text
Monday: Designing for accessibility

3/5 Wednesday: Designing for accessibility; Community Labor check-in #1

Lab #6: Accessibility

Week 7: Popular Web Article Presentations

3/10 Monday Lab: Presentations
Monday: Presentations; Applying a wider lens

3/12 Wednesday: Presentations; Applying a wider lens

Lab #7: Presentation Analysis

Digital Translation WEB ARTICLE PROJECT DUE 3/14 at 11:59pm / Lab #8 due by 3/26

Week 8: Spring Break—no class
3/17
3/19

Week 9: Expanding Your Topic to Webtext
3/24 Monday Lab: case study environmental justice
Monday: SUNY SDGs, environmental justice

Lab #8 due by 3/26—Applying a Wider Lens

3/26 Wednesday: In-class Notecard for **Research Practice #1**

Lab #9: Thinking local (not global or universal)

Week 10: Values in Data and STEM
3/31 Monday Lab: Race in STEM, citations, content, research design
Monday:

4/2 Wednesday: Discovering the unknown; community labor check-in #2

Lab#10: Race and Disability; **Research Practice #2**

Week 11: Values in Digital Design
4/7 Monday Lab: creating images, screen readers, multiple pathways
Monday: technology and readings related to images in the webtext

4/9 Wednesday: Online class—Kati presents research at a conference

Lab #11: Digital Design; **Research Practice #3**

Week 12: Digital Design and Research Workshop
4/14 Monday Lab: Digital Design and Transcription
Monday: Digital Design topic TBD

4/16 Wednesday: Workshop for research, remaining sources
Lab #12: Design plans and progress; **Research Practice #4**

Week 13: Data and the Environment
4/21 Monday Lab: AI energy and water usage; Tech waste
Monday: local SUNY SDGs, campus plan

4/23 Wednesday: Research catch-up

Lab #13: Environmentalism; **Research Practice #5**

All Research Practices due no later than 4/25 at 11:59pm

Week 14: Webtext
4/28 Monday Lab: Webtext drafting – forking vs linear structures
Monday: Citations, links, and design

4/30 Wednesday: Introductions and call-to-action activity

Lab #14: Call to action / Judgment

Week 15: Webtext Presentations and Performance Metrics
5/5 Monday Lab: Webtext Presentations
Monday: Webtext Presentations

5/7 Wednesday: Performance Evaluations with metrics and data; CTEs

Lab #15: Performance evaluation Final Community Labor

WEBTEXT DUE by our final exam time.

Our Final Exam Time officially ends on Tuesday, May 13th at 3:30pm = the end of the semester for accepting any work.

SUNY Cortland Community Values

Academic Integrity Statement: All students are expected to uphold academic integrity standards. Plagiarism is defined as taking the ideas of others and using them as one's own without due credit. Students who cheat in examinations, course assignments, or plagiarize in this course may be disciplined in accordance with university rules and regulations. (College Handbook, Chapter 340)

Basic Needs Statement: At SUNY Cortland we recognize the importance of a student's access to basic needs, and how the lack of basic needs could hurt academic performance. Resources are available for any SUNY Cortland student who has difficulty affording groceries or who lacks a safe and stable living environment. Please visit cortland.edu/cupboard for more information.

Disability Statement: "As part of SUNY Cortland's commitment to a diverse, equitable, and inclusive environment, we strive to provide students with equal access to all courses. If you believe you will require accommodations in this course, please place a request with the Disability Resources Office at disability.resources@cortland.edu or call 607-753-2967. Please note that accommodations are generally not provided retroactively so timely contact with the Disability Resources Office is important. All students should consider meeting with their course instructor who may be helpful in other ways." (College Handbook, Chapter 745)

Diversity Statement: "SUNY Cortland is dedicated to the premise that every individual is important in a unique way and contributes to the overall quality of the institution. We define diversity broadly to include all aspects of human difference. The College is committed to inclusion, equity, and access and thus committed to creating and sustaining a climate that is equitable, respectful and free from prejudice for students, faculty and staff. We value diversity in the learning environment and know that it enhances our ability to inspire students to learn, lead and serve in a changing world. We are committed to promoting a diverse and inclusive campus through the recruitment and retention of faculty, staff and students. As a community, we hold important the democracy of ideas, tempered by a commitment to free speech and the standards of inquiry and debate. To this end, we are dedicated to developing and sustaining a learning environment where it is safe to explore our differences and celebrate the richness inherent in our pluralistic society." (College Handbook, Chapter 130)

Inclusive Learning Environment Statement: "SUNY Cortland is committed to a diverse, equitable and inclusive environment. The course instructor honors this commitment and respects and values differences. All students enrolled in this course are expected to be considerate of others, promote a collaborative and supportive educational environment, and demonstrate respect for individuals with regard to ability or disability, age, ethnicity, gender, gender identity/expression, race, religion, sex, sexual orientation, socio-economic status or other aspects of identity. In an environment that fosters inclusion, students have the opportunity to bring their various identities into conversation as they find helpful, but are not expected to represent or speak for an entire group of people who share aspects of an identity. If you have any questions or concerns about this statement, contact the Institutional Equity and Inclusion Office at 607-753-2263." (IEIO http://www2.cortland.edu/about/diversity/)

Title IX Statement: "Title IX, when combined with New York Human Rights Law and the New York Education Law 129-B, prohibits discrimination, harassment and violence based on sex, gender, gender identity/expression, and/or sexual orientation in the education setting. The federal Clery Act and NY Education Law 129-B provide certain rights and responsibilities after an incident of sexual or interpersonal violence. When a violation occurs, victims and survivors are eligible for campus and community resources. Where the College has jurisdiction, it may investigate and take action in accordance with College policy. If you or someone you know wishes to report discrimination based in sex, gender, gender identity/expression, and/or sexual orientation, or wishes to report sexual harassment, sexual violence, stalking or relationship violence, please contact the Title IX Coordinator at 607-753-4550, or visit cortland.edu/titleix to learn about all reporting options and resources. (Updated by SUNY Legal Feb. 1, 2018)." (Title IX http://www2.cortland.edu/titleix)