MEETING C LEARNING OUTCOMES (WITH EXAMPLES!)

Faculty Resource Series

The C learning outcomes are designed to help students develop into strong readers and writers over the course of their education, and especially to develop as robust communicators in their unique fields. The instantiation of these outcomes in each particular course is likely to look different depending on the course level and type – a student in a 400-level chemical engineering course will likely read and analyze different types of texts than a student in a 100-level architecture course, for example.

Please see below for examples of how each learning outcome might be met – the learning outcomes are in bold, and below each outcome is a list of example assignments that would satisfy the outcome. At the end of this document is a sample writing assignment that touches on all of these learning outcomes.

Students can critically read and analyze a variety of texts (e.g., news articles, academic papers, data sets) in order to develop their own claims in writing.

- Students write a literature review that synthesizes 3+ research articles and technical reports
- In the conclusion of a laboratory report, students compare the results of their experiment to similar results from another published research paper
- Students write an analysis of a building's architecture, drawing in evidence from historic newspaper articles and original building drawings

Students are able to craft a text with attention to audience, purpose, context, and conventions.

- Students produce a research paper that communicates a new finding to an academic audience, using standard conventions of academic writing
- Students produce a TikTok video that communicates an important message about food safety, which is standard in length, style, and clearly geared towards a younger public audience

Students engage in producing communication as a process (e.g., pre-writing, drafting, revising, peer review, editing).

- Students are asked to submit an essay outline that they receive feedback on, and then write the paper using that feedback
- Students submit a rough draft of a paper, receive instructor feedback, and edit based on that feedback
- Students submit an annotated bibliography that they receive a grade and feedback on, and then write a research paper using that annotated bibliography

Students can appropriately use evidence (e.g., data, cited sources) as part of their argument.

- Students write a technical report where they analyze a dataset
- Students produce a video where they analyze a historical artifact

Students can present an effective argument in the appropriate medium of communication, which can include written, visual, oral, or other emergent forms of communication.

- Students produce a written research paper on a class topic
- Students produce an infographic explaining COVID-19 prevention to the public
- Students give a conference-style presentation on their original work

Students can communicate specialized knowledge appropriately for an audience.

- Students use appropriate terminology in an assignment asking them to explain how airplanes work to elementary school students
- Students include an appropriate amount of detail to justify their claim about the performance of a piece of software in a research paper

Example assignments

All of these outcomes can easily be met within 1-2 robust writing assignments in a course. Below are two examples of different assignments that each meet all of the learning outcomes. The assignments are annotated for how they meet each outcome.

Example Assignment 1:
Technical Report Assignment

Task

You work in data analytics at O'Hare airport (ORD). The executives running O'Hare recently learned about a new air traffic control program called *HawkScheduler 2.0* for optimally scheduling and assigning gates to airplane takeoffs and landings. Currently, O'Hare uses a software called *EagleScheduler 5*, which they have used since 2015. They have asked you to test out the program for 1 month in Terminal A at the airport and to gather data on what effects it had.

You implemented the program on April 1, 2022. Here is data [link to spreadsheet] on the following for the entirety of March (pre-implementation) and April 2022 (during implementation): number of flights that departed each day, average takeoff delay (minutes) per day, and average customer satisfaction of customers on departing flights per day. Customer satisfaction was measured by a short 1-question survey sent via text to all passengers who had a mobile phone number connected to their ticket, which asked, "On a scale of 1 to 5 (where 1 is very dissatisfied and 5 is very satisfied), how satisfied are you with your experience at O'Hare (ORD) today?" The average response rate was approximately 63%.

Analyze the data and write a short technical report on the study for O'Hare's executives, so that they can decide whether to purchase the software. Be sure to include a brief analysis of the kinds of system upgrades ORD would need in order to implement HawkScheduler 2.0, based on the software documentation [link to software documentation].

Paper requirements

Your report should be 2-3 pages (single-spaced) and written in IMRD format. It should also include a title page and executive summary, which do not count toward the page count. You should include at least 2 main data stories in your results section, supported with figures. Please consider all of the data visualization and IMRD information we discussed in class when writing this report.

Due dates

Outline (including all major sections and data visualizations) .....February 17
Full draft .....February 24

Commented [HR1]: Here, students are asked to analyze a dataset (and later, software documentation) and use that analysis as evidence in their report. This requirement thus meets the following LOs:

1. Students can critically read and analyze a variety of texts (e.g., news articles, academic papers, data sets) in order to develop their own claims in writing

4. Students can appropriately use evidence (e.g., data, cited sources) as part of their argument

Commented [HR2]: This assignment defines a genre that students must present their arguments within the constraints of. This requirement thus meets the following LO:

5. Students can present an effective argument in the appropriate medium of communication, which can include written, visual, oral, or other emergent forms of communication.

Commented [HR3]: This assignment defines an audience and purpose for the technical report. As such, students are asked to meet the following LOs:

2. Students are able to craft a text with attention to audience, purpose, context, and conventions.

6. Students can communicate specialized knowledge appropriately for an audience.

Commented [HR4]: In this assignment, students are asked to produce an outline which they receive a grade and feedback on, and then to use that feedback in creating their full draft. As such, this assignment meets the following LO:

3. Students engage in producing communication as a process (e.g., pre-writing, drafting, revising, peer review, editing).

Rubric

Commented [HR5]: The rubric for this assignment allows for individual assessment of all LOs except number 3, "Students engage in producing communication as a process (e.g., pre-writing, drafting, revising, peer review, editing)." That LO could be assessed through the grade on the outline.

CRITERIA	POIN
Argument	/4
Report has an introduction that thoroughly addresses each of the novelty moves, provides any important background, and clearly articulates the goals of the project	/20
Report has a methods section that includes all relevant detail, and is broken into subsections as applicable	/15
Report has a results section that presents at least 2 major data stories and transitions between them appropriately; results section both introduces/describes visuals and explains/interprets them	/20
Report includes 2+ data visualizations that follow all principles discussed in class (captions, designed for easy reader comprehension)	/10
Report has a discussion section that includes at least a summary of major results, limitations, costs of implementation, and recommendations	/15
Design	**/20**
Report includes a title page with an clear and focused title, date, and author's name	/5
Report includes an executive summary that highlights main results and recommendations, while summarizing all IMRD pieces	/10
Report is 2-3 pages, single-spaced, 12 pt Times New Roman font; it is designed and written professionally	/5
	/100

Example Assignment 2:
COM 380 Final Project

Project Description

For your final project, you will write a research paper expanding on 1+ of the topics we have covered in class (genre, sentiment, metaphor, intertextuality, etc.). Your primary goal with this paper should be to demonstrate how techniques or developments from computational text analysis can inform our theoretical understandings of language. This may involve simply applying a computational text analysis technique to a corpus and analyzing the results, expanding or developing new computational text analysis techniques, or theoretically analyzing how a technique works (depending on your comfort/skill with textual analysis) – regardless, the primary goal is to use this to expand our theories and knowledge of language. You may develop new approaches to NLP/computational text analysis as part of this project if you desire, but this would be supplemental and is not required.

Some example project ideas:

- Running sentiment analysis on corpora of liberal and conservative news stories and analyzing the results so as to show how strategies of pathos and emotional persuasion differ
- Analyzing where a part-of-speech tagger makes errors with Edgar Allen Poe's writing in order to show how and where Poe used complex grammatical form for rhetorical effect
- Expand stylometric analysis techniques to account for part-of-speech and compare the results to traditional techniques that use most-frequent-words. Analyze theoretically why certain parts of speech are helpful for identifying a particular author like Madeline Miller from her contemporaries (what is unique about how grammatical form helps her to develop her stories?).

The possibilities are wide open with this project. You are encouraged to choose a topic that is of either personal or professional interest to you.

Due Dates

Proposal (10% of final grade) ..... Mar 1
Final paper (30% of final grade) ..... May 2

Assignment Descriptions

Proposal
The proposal should be roughly 2-4 pages long (double-spaced, 12pt font), and should include the following: 1) a research question, 2) a brief review of relevant scholarship that helps you to justify that question (include at least 4 scholarly sources, which can be drawn from class readings or elsewhere); 3) a plan for the analysis or work that you need to conduct (more of a lit review? Textual analysis? Developing new tools or techniques?).

Commented [HR1]: In this assignment, students are asked to produce a proposal which they receive a grade and feedback on, and then to use that feedback in creating their full draft. As such, this assignment meets the following LO:

3. Students engage in producing communication as a process (e.g., pre-writing, drafting, revising, peer review, editing).

This paper is primarily an opportunity to get feedback from me on the project you are considering before diving too far in.

Final paper
The final paper should be a 10-15 page long (double-spaced, 12pt font) academic research paper. It should include a thesis/main claim that argues for some new insight into a text or language theoretically by means of computational text analysis. You should include at least 5 scholarly sources (3+ should be sources you find on your own). You are welcome to use APA, MLA, or IEEE citation/formatting style – just choose one and be consistent with it.

I need help with…

- **Coming up with an idea:** Drop in my office! I am always excited to talk with students about what they are finding interesting, and we can brainstorm together.
- **How to do computational text analysis:** Aside from using me, there are lots of tutorials online for how to perform different kinds of text analysis. For example, check out The Programming Historian, NLTK's guides, spaCy's documentation, or searching on Medium for easy, user-friendly guides on many common computational text analysis techniques. Many of these require some very light coding in Python or R, but if you have no interest in coding of any kind, there is some very good free text analysis software you can consider using like AntConc, Docuscope, and Voyant. This site maintains a nice list of tools.
- **Finding texts to analyze:** If your project requires analyzing texts, you may only need 1 or 2 texts, or you may need a whole corpus of them. As long as you can justify your choice of texts, I am fine with whatever texts you choose. If you need a corpus, know that developing one from scratch is not always easy (you're welcome to if you want), but luckily there are a number of freely downloadable corpora already available. McGill has a nice guide to several, as does Warwick and UCSD.
- **Writing:** IIT's writing center offers (free!) in-person and online 1-on-1 writing conferences for students. The tutors there are great at helping with brainstorming, outlining, revising, proofreading, and citations. You can make an appointment online. I will also give you writing feedback on your outline and rough draft.

Rubrics

Proposal

CRITERIA	POINTS
Argument	**/8**
Includes a suitable research question that fits within the project description	/4
Reviews relevant scholarship that helps to justify the research question as interesting and valid	/2
Includes a detailed plan of work that includes a list of further reading, types and specifications of relevant analyses, etc.	/2
Writing	**/2**

Commented [HR2]: This assignment defines an purpose and genre. As such, students are asked to meet the following LOs:

2. Students are able to craft a text with attention to audience, purpose, context, and conventions.

5. Students can present an effective argument in the appropriate medium of communication, which can include written, visual, oral, or other emergent forms of communication.

Commented [HR3]: This assignment asks students to use scholarly sources as part of their paper. As such, this assignment meets the following LO:

1. Students can critically read and analyze a variety of texts (e.g., news articles, academic papers, data sets) in order to develop their own claims in writing

Is typed, approximately 2-4 pages double-spaced, 12 pt font	/1
Uses a standard citation format	/1
	/10

Final paper

CRITERIA	POINTS
Topic	**/60**
Advances a novel claim about language theory, based on one of the topics from class	/20
Adequately uses one of the following as a critical part of developing the paper's central claim: 1) the study of a computational text analysis technique theoretically, mathematically, or computationally; 2) computational analysis of a written/spoken text or corpus; 3) development and/or evaluation of a new approach to computational text analysis; or, other as discussed instructor	/20
Shows careful, critical, and thoughtful engagement with the techniques, tools, texts, and corpora involved in the paper	/20
Argument	**/30**
Includes a brief review of relevant scholarship (5+ sources) to contextualize the paper's main claim	/10
Demonstrates a clear argument structure that fully supports the thesis/main claim	/20
Writing	**/10**
Is typed, approximately 10-15 pages, double-spaced, 12 pt font	/2
Uses MLA, APA, or IEEE citation and formatting style, and includes a bibliography and appropriate, topical title	/2
Includes a clearly identifiable main claim, analysis or argument, and conclusion	/4
Uses section headings and formatting appropriately to structure the paper, per citation style	/2
	/100

Commented [HR4]: As part of the paper, students are asked to use some analysis, study or development of a tool as part of developing their claim. This requirement thus meets the following LO:

4. Students can appropriately use evidence (e.g., data, cited sources) as part of their argument

Commented [HR5]: This requirement also requires students to discuss specialized knowledge from the class. As such, it meets the following LO:

6. Students can communicate specialized knowledge appropriately for an audience.