**Syllabus**

ENG 299C – Interdisciplinary Science Writing: Critical Literacy in the Sciences

Instructor: Dr. Eric Morel

Class Meeting Times:

T/Th: 12:00-1:20 p.m.

Course Websites:

<https://canvas.uw.edu/courses/1379132>

E-mail: egmorel@uw.edu

Office Location: Wallace 015E

Office Hours:

T: 1:30 p.m. – 2:30 p.m.

W: 3:00 p.m. – 4:00 p.m.

And by Appointment

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# Course Goals and Description

This writing seminar explores how science moves through the lives and personal stories of those who engage it while giving students with interests across the diverse but interconnected disciplines of the natural sciences a space to pursue topics of personal interest. Through analysis and composition of a variety of texts, the course offers a path toward becoming authoritative participants in scientific discourse while simultaneously recognizing ways that values are embedded and centered (often invisibly) in the sciences and their related institutions. The assignments and coursework are means by which students can both interrogate and confirm the values of the science they want to pursue.

In this course we will work with a variety of texts, including your own and your classmates’ writing as you move through cycles of reading, discussion, reflective and formal writing, peer review, conferencing, revision, and intensive instructor interaction and feedback. Assessment of major assignments will involve collaboration and peer review between students as well as instructor comments.

Course Outcomes

Outcome 1: Understand and participate in science as contingent, contested, and situated.

* What purpose(s) does science serve? Does it have social or moral responsibility?
* What are reductionist/essentialist and holistic ways of knowing in science? How can intertextual connections provide greater insights into particular “facts”?
* How are questions formulated and answered in the sciences? What kinds of questions can science answer? Why do people choose particular questions in science, and how do they develop hypotheses?

Outcome 2: Engage diverse ways of knowing and doing in science to identify strengths and limitations of those approaches.

* How do scientists situate the self in relation to various communities and situations? What values underlie scientific assumptions, questions, and hypotheses?
* By what means can students locate themselves within scientific practice and discourse? What kinds of cultural and intellectual capital do they bring to the course and might they bring to scientific inquiry?
* How can students deploy a critical lens as they navigate scientific fields first as apprentices and then as professionals? In what ways can novice scientists use transformative communication practices within a realm where the language of Western mainstream science is dominant?

Outcome 3: Trace the genealogies of ideas in circulation as information moves through infrastructures and communities. Identify and evaluate the effects of any changes.

* How do scientific concepts and “discoveries” get reified as they are communicated across various platforms? How do reified concepts affect certain groups?
* How can inquiry into scientific content provide occasions for writing to learn as a form of reflection and engagement? How can communicating scientific content provide occasions for learning to write in order to share that knowledge with particular audiences?
* In what ways can scientific communication practices (both traditional and transformative) serve as a vehicle for responding to all of the questions above?

# Assignment Descriptions

**Science Literacy Narrative** (Due: Tuesday, Apr. 21, 12:00 p.m.): All scientists have intellectual, cultural, and linguistic histories. For the sake of “neutrality” and “objectivity,” apprentices are trained to separate themselves from these histories, especially when they are conducting and communicating research. This assignment asks you to read personal essays by three prominent biologists—geneticist David Suzuki, botanist Robin Wall Kimmerer, and ornithologist J. Drew Lanham—as examples to guide your own reflection and composition. You will then compose your own narrative, exploring how your identities, investments, and intellectual interests have shaped your science training and explaining your trajectory as a scientist. This assignment is a form of reflection, orientation to/within a scientific field, and self-advocacy. What insights and approaches do you uniquely contribute to scientific inquiry and what are you able to see? Relatedly, what potential blind-spots or values might the limits of your own perspective entail?

**Lifecycle of a Scientific Fact Portfolio** (Due: Tuesday, May 12, 12:00 p.m.): Studying scientific phenomena generates many forms of communication. The nature of research findings, and of scientific knowledge more broadly, can be distorted, misconstrued, or overblown as they are translated across communication platforms. You should select one particular phenomenon and study the “genealogy” of that phenomenon as it moves through various stages of translation either by one author (i.e., from grant proposal to research article to press release to mainstream media coverage to social media to textbook to documentary to literature to...) or across citations (i.e., from initial publication and coverage, to review and debate, to incorporation and citation, to general knowledge, to…). Adjustments in communication can be appropriate or accessible for certain audiences and purposes, such as research reported to a general scientific audience, a more specialized field within science, to K-12 students, or general public audiences. However, these adjustments still impact what is understood (or understandable), in what ways, and by whom. This project will take the form of a digital portfolio with an introductory page, four tracing the genealogy, and closing with future directions; for each of the four pages, you will conduct rhetorical analyses at each point of communication, demonstrating how situation, convention, and audience expectations all shape the ways that the “facts” get represented.

**Citizen Science Argumentative Paper** (Due: Tuesday, Jun. 2, 12:00 p.m.): The last couple of decades have seen a rising movement of “citizen science,” in which everyday people contribute their resources to scientists as part of large-scale, distributed experiments. While exciting and generative, these projects also have common issues, which we will read about in a key review of the topic. After conducting your own review of 3 existing projects and their output, you will write an argumentative paper update Conrad and Hilchey’s reviews to argue whether a particular problem is ongoing. This unit will explicitly consider who “does” science and who benefits from scientific work.

**Literacy Paper Revision** (Due: Tuesday, Jun. 9, 5:00 p.m.): For your final assignment, you will be invited to revise your first paper from the course to show your improvement. You will submit a new file that tracks changes and comments on revisions and corrections to articulate what you’ve internalized over the quarter and to signal any development in how you understand your relationship to science in the past, present, and future.

# Grading and Evaluation Policies

Course grading is designed to reward active engagement with the class as a community as well as work in the form of individual assignments. Students concerned about their performance in the course overall are welcome and encouraged to visit me in office hours. The three major assignments will be graded collaboratively in conference settings by committees of two peers and myself; your grade will be the average score from the assessments by those two peers and myself. Those conferences will follow upon both synchronous peer-review sessions, where all of you will be able to pre-screen each other as readers and communicate challenges and the assessments will be based on the rubrics collectively generated by classes in synchronous class meetings.

 Science Literacy Paper 10%

 Scientific Fact Portfolio 15%

 Citizen Science Argument 20%

 Literacy Paper Revision 10%

 Diagnostic Surveys 5%

 Conference Participation 15%

 Canvas & GoogleDoc Work 25%

* Diagnostic Surveys will be clearly marked in course pages and can be found in the “Quizzes” section of our Canvas site. They are only graded for on-time completion, and are assessment mechanisms I will use to tailor my digital teaching to class needs.
* Conference Participation will involve 2% per conference for attendance and 3% for turning in completed grading rubrics and comments. These are essential to grading your peers.
* Canvas & GoogleDoc Work is graded strictly on completion within the timelines announced in each instance. These are mechanisms for you to process and inquire about course content and to encounter the thoughts of your peers.

# Required Tools/Materials

- Internet Access, UW Net ID, and password

- Access to Canvas and course readings (PDFs and Links)

- Reliable method(s) of file storage (USB device, email attachment, UDrive, cloud storage)

- Suggested: Zoom Account

# Acknowledging Our Situated Learning

The University of Washington acknowledges the Coast Salish peoples of this land, the land which touches the shared waters of all tribes and bands within the Suquamish, Tulalip and Muckleshoot nations.

Many of the traditional place names document plant and animal life in the area,

geographic features, or other significant aspects of human observation and experience

there. During this quarter, we are studying and learning about systematic and innovative

ways of observing and communicating knowledge of the natural world. As we do so, it’s

important to recognize that the ways we’ve been trained to observe and experience the

world (including cultural and disciplinary training) impact what we are able to see when

we make observations, research, and write.

# How to Succeed in This Course

*Make Time for Independent Processing* – In some classes, I require students to keep various note-taking methods, but that’s not the case here. So, even though I will not require you to take and turn in any particular notes, be advised that it’s in your interest to keep some. These can be personal notes from “lecture” videos, or they can be reflections at various points that synthesize your learning. But write something down somewhere. It will give you sharper memories for when you sit down to work on the written assignments. Putting thoughts into your words will also aid with long-term retention and learning. You will be more likely to maintain this if you keep yourself accountable through a ritual of dedicated time or space for such reflections.

*Be Organized* – There aren’t very many large assignments in the course, but each day will involve some interaction with course material online. Make a plan for when you will do work for this class. You’ll also find that our readings will range in size and difficulty, so make sure you plan enough time in your schedule to get things done—open them up beforehand and decide if you need to break the reading into chunks. Although I have designed the course to be mostly asynchronous for inclusion and independent learning, don’t forget about our three synchronous meetings (Apr. 16, May 7, and May 28) and your assigned group conferences. Setting reminders for those class sessions now would be a valuable aid for this remembering.

*Bring a Collaborative Mindset* – Given world-historical circumstances, this course is designed for online conversations. Your classmates aren’t just your classmates; they’re also your team members (in some cases, this will be even more literal). It will quickly become obvious if you are not doing the readings, and students who miss important synchronous meetings will be grouped together to minimize negative impacts on more dependable collaborators. If you treat this class a space for active and collaborative knowledge-building, you’re more likely to achieve the substance of the course goals.

*Practice Learning-Oriented Digital Hygiene* – Many of us prefer in-person learning to online learning because of the way it focuses attention and energy, but that’s sadly not available to us this term. As you prepare to learn on your digital device, consider learning what tools you might use to minimize distractions. Can you block certain pings and notifications while engaging out content, or can you get in the habit of checking communications at half- or full-hour intervals instead of as things come in? When should you get up and stretch while writing? Know your own tools to make learning digitally a more organized and generative medium.

# Accommodations

If you need accommodation of any sort, please let me know so that I can work with the UW Disability Resources for Students Office (DRS) to provide what you require. This syllabus is available in large print, as are other class materials. More information about accommodation may be found online [here](http://www.washington.edu/students/drs/).

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW’s policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](https://registrar.washington.edu/students/religious-accommodations-request/).

# Late Work

Late assignments (turned in without prior approval) will incur deductions of 10% for each day late. For example, an assignment submitted on the due date after the appointed time will incur a late penalty of 10%; an assignment turned in three days after the due date will incur a penalty of 30%. An assignment turned in ten days late incurs a penalty of 100%. As such, I do not accept major assignments later than nine days after the due date.

Participation work designed as our digital class equivalents (e.g. posting to Canvas or GoogleDocs) is not accepted late. This policy is flexible only in emergency or medical situations or, *with advance notice of excused absences*. Absences excused with advance notice may include: University-mandated absences, legal commitments, medical reasons, family need, or personal emergency.

# Academic Honesty

Plagiarism, or academic dishonesty, is presenting someone else's ideas or writing as your own. In your writing for this class, you are encouraged to refer to other people's thoughts and writing--as long as you cite them. As a matter of policy, any student found to have plagiarized any piece of writing in this class will be immediately reported to the College of Arts and Sciences for review.

# Assignment Format

Papers in this course will use MLA Style for formatting and citation. Unless I directly specify otherwise, please turn in all assignments in Times New Roman, 12 pt. font, double-spaced, with one-inch margins. Great resources for citation styles are available online—and the UW Libraries website is a reliable first stop. All submissions will be made online through Canvas.

# Classroom Etiquette

Because the exchange of ideas is so important to this class, students should feel comfortable taking intellectual risks; to ensure a classroom environment where this happens, it is necessary for everyone to be respectful of one another. It is normal and even expected that, in our class discussions, we will disagree or that substantive differences of opinion or perspective will arise. Making mistakes is often part of learning, but intentional or personally-directed disrespect, such as the use of hurtful epithets, is not. Thus, it is important to focus on disagreement with *ideas* more than the *people* who articulate them. If patterns of disrespectful behavior emerge, a conversation will take place to determine how to break the pattern. If problem behaviors do not change, it may warrant your removal from class. If I sense or am made aware of negative friction among members of the class, I may invite those involved to participate in a mutual goal-finding conversation. Such tensions surface rarely, but they can be worked through. A classroom that fosters trust and inquiry produces better ideas; the more you respect each other and your opinions, the better everyone’s work will become. Listen when others speak, and respond to others’ thoughts respectfully—in short, follow the expectations of academic discourse.

Digital Addendum: Because we are not meeting in a physical space this quarter, I have fewer ways to gauge if any interpersonal problem were to arise among students. Conversations that take place in written formats increase opportunities for misunderstanding because cues of tone and interpersonal presence are absent. But if a peer continually addresses you in problematic ways or crosses into digital spaces or behaviors you find uncomfortable, I encourage you to consult me to mediate the situation.

# Student Resources

UW Libraries The University of Washington has outstanding research resources that span three campuses and substantial access to Internet databases. The various sites of the Seattle campus libraries may make productive work environments, and they provide access to computers, printers, and scanners/copy machines. I will discuss library resources including subject librarians and [research guides](http://guides.lib.uw.edu/research/), but familiarizing yourself with what the library makes available to you is highly recommended. Learn more at: [http://www.lib.washington.edu](http://www.lib.washington.edu/)

Odegaard Writing & Research Center The OWRC empowers writers and fosters a supportive learning community on the University of Washington, Seattle, campus by collaborating with students, staff, and faculty on all kinds of writing and research. It is a place to come and chat with peer tutors and librarians, to grow as a writer in the context of whatever project is foremost in your mind. They can't magically "fix" papers for you, but the tutors can ask all kinds of smart questions and talk with you in order to help. You can make appointments online at: <http://depts.washington.edu/owrc/>

CLUE The Center for Learning and Undergraduate Enrichment (or CLUE) strives to further UW's mission to facilitate learning in small, comfortable environments. This resource is available to all UW students Sunday – Thursday nights from 7:00 p.m. to midnight, first-come first-serve. Learn more at the website: <http://depts.washington.edu/aspuw/clue/home/>

Student Tech Loan Program You can check out computers, audio, and video

equipment. Make a reservation by noon the day before you want it for a pick-up from

the basement of Kane Hall or the Health Sciences Building. The HUB has a same-day

pick-up option. <https://stlp.uw.edu/> (See website for any Spring 2020 changes).

Counseling Center UW Counseling Center workshops include a wide range of issues including study skills, thinking about coming out, international students and culture shock, and much more. Check out available resources and workshops [here](http://depts.washington.edu/counsels/), and learn about Let’s Talk, where you can drop-in for a consultation with a counselor to support your mental health offered during the 10 weeks of each quarter, by clicking [here](https://www.washington.edu/counseling/services/lets-talk/).

Any Hungry Husky Studying and living in Seattle can be expensive – there is some free

food at the UW Food Pantry in Poplar Hall 210 if you show your Husky ID. You can learn about this and other programs by clicking [here](http://www.washington.edu/anyhungryhusky/home/get-food/).

Student Legal Services On-campus law office in HUB 306 that offers FREE 40-minute

consultations on legal matters. https://depts.washington.edu/slsuw

# Campus Safety

Preventing violence is everyone's responsibility. If you're concerned, tell someone. For information visit the [SafeCampus website](http://www.washington.edu/safecampus). Husky Nightwalk & Nightride: UW police will provide a walking escort on campus after dark, or you can use the U-Pass shuttle service to the IMA after dark for safety: <https://www.washington.edu/ima/about/safety/>.

Violence includes sexual violence and assault. The UW has resources and spaces for reporting and seeking help at <http://www.washington.edu/sexualassault/>. Each of us has a role to play through language and action to ensure “rape culture” has no place at the UW.

# Concerns and Complaints

If there is an issue in the class that you are concerned about, please let me know and

we can work together to find a resolution. However, if you would like to communicate

with someone else in the English Department, you may contact my direct supervisor,

Megan Callow, who is the director of the Interdisciplinary Writing Program. After

discussing the issue with Megan, if you still feel like the situation is not resolved, you

may contact the Chair of the English Department, Anis Bawarshi.

Megan Callow, IWP Director mcallow@uw.edu

Anis Bawarshi, Department Chair bawarshi@uw.edu