

Topics in ENC 1145 Writing About Science

Course: #11870, 35G4
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T (1:55-3:45)/R: (1:55-4:50)
T (MAT 5)/R (NRN 1001)

“The aim of science is to discover and illuminate truth. And that, I take it, is the aim of literature, whether biography or history or fiction. It seems to me, then, that there can be no separate literature of science.”

— Rachel Carson

Course Description:

This course will work at the intersection of two seemingly different disciplines—literature and science—to examine how both work together in generative ways. We will study the ways in which literature responds to and shapes discourses of science and how science borrows from literary aesthetics and techniques to better communicate its ideas and concepts. We will study

writers who considered themselves to be scientists as well as scientists who considered themselves to be writers to understand how humanities and sciences symbiotically produce change. Spanning a wide variety of genres—nature writing, science fiction, historical documents, children’s literature, poetry, and documentary—we will pursue questions such as:

- How is science a kind of fodder for literary imaginations about new kinds of futurities?
- How is science a narrative in and of itself about particular places, people, and nonhumans?
- How does literature complicate discourses of science? What can literature do that science cannot?
- What can the fields of literature and science learn from one another?

To this end, we will not think of one field as inherently better than the other, but as literature and science as companions in understanding the world around us.



Course Objectives:

Your work in this class will make you a better writer, reader, and a more critical thinker. If pursued with the appropriate energy and effort, you will:

- ...discover and become familiar with the very basic components of ecology, biology, physics, and chemistry
- ...understand how components of science appear literally, imaginatively, and formally in works of literature
- ...develop a more sophisticated understanding of how literature can contribute to understandings of science
- ...study, practice, and acquire competence in writing for multiple purposes and audiences and through distinct genres: creative field journaling, science communication, public writing, literary and critical analysis, and the personal essay.

Materials Required:

Darwin, Charles. *Origin of Species* (available for free on Project Gutenberg)

Carson, Rachel. *Silent Spring* (available for free on Project Gutenberg)

*Kimmerer, Robin Wall. *Braiding Sweetgrass*. Milkweed Editions, ISBN: 9781571313560

*Rosenthal, Olivia. *To Leave with the Reindeer*, trans. by Sophie Lewis, And Other Stories, ISBN: 1911508423

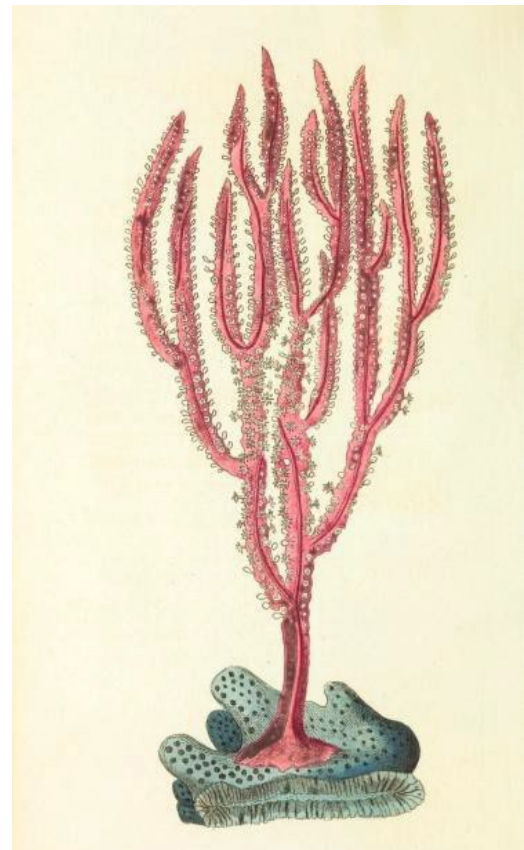
*Powers, Richard. *Playground*, ISBN: 978-1324086031

* *means you must purchase the text. All other materials will be provided on Canvas. Please note that an e-book version of any of these texts is perfectly fine to use in class.*

Course Outcomes:

In addition to gaining a deeper appreciation of the expressive potential of language and the varieties of literature, students will develop a broader cultural literacy and an understanding of the changing definition and role of world literature (produced between the seventeenth century to modern) in society today. Therefore, by the conclusion of the course it is expected that students will be able to:

1. Demonstrate knowledge of the content of specific literary works and the structures and conventions of different literary genres.
2. Produce original, critical readings of literary texts, using different methods of interpretation and analysis, while identifying and interpreting formal and genre-related elements in the texts.
3. Critically assess the variety of roles that literature has played historically and continues to play in the human experience.



4. Draw connections between literary texts and their biographical, historical, and cultural contexts of authorship and reading.

General Education Objectives:

- This course confers General Education credit for either Composition (C) or Humanities (H). This course also fulfills 6,000 of the university's 24,000-word writing requirement (WR).
- A minimum grade of C is required for General Education credit.
- Composition courses provide instruction in the methods and conventions of standard written English (grammar, punctuation, usage), as well as the techniques that produce effective texts. Composition courses are writing intensive. They require multiple drafts submitted to your instructor for feedback before final submission.
- Course content should include multiple forms of effective writing, different writing styles, approaches and formats, and methods to adapt writing to different audiences, purposes and contexts. Students should learn to organize complex arguments in writing using thesis statements, claims and evidence, and to analyze writing for errors in logic.
- The University Writing Requirement (WR) ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning. To receive Writing Requirement credit, a student must receive a grade of C or higher and a satisfactory completion of the writing component of the course. This means that written assignments must meet minimum word requirements totaling 6000 words.



General Education Learning Outcomes

At the end of this course, students will be expected to have achieved the following learning outcomes in content, communication and critical thinking:

- Content: Students demonstrate competence in the terminology, concepts, theories and methodologies used within the academic discipline.
- Communication: Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline. Students will participate in class discussions throughout the semester to reflect on assigned readings.
- Critical Thinking: Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

1. **Completion:** You must complete all assignments to receive credit for this course.
2. **Attendance:** Attendance is compulsory and will be taken on a daily basis. Every absence after the third one will result in a deduction of 10 points each. Six absences over the course of the semester will lead to automatic failure of the course. Absences will be excused only in accordance with UF policy. Acceptable reasons include illness, religious holidays, military obligation, and those absences covered by UF's twelve-day rule. <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx> Students are expected to arrive to class on time. Late arrivals (more than 10 minutes late) will be counted as half an absence. Attendance will require not merely the physical presence of the student but also the maintenance of classroom decorum, failing which you will be marked absent. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies.
3. **Paper Format & Submission:** Papers will need to be submitted online on Canvas in the form of word files (doc. and docx.). The assignment boxes will be activated well before the submission deadline. Papers should follow best college writing practices and conform to MLA format.
4. **Late Papers/Assignments:** Late submissions will be accepted only if the student has informed the instructor of her/his inability to submit the assignment on time. The student will be allowed a window of two days following the deadline to make the submission, during which period, the student will incur a penalty of 10 points per day. Failure of technology will not be accepted as an excuse. Accommodations can be made for extenuating circumstances, but you must communicate with me.
5. **Academic Honesty:** Plagiarism violates the Student Honor Code and requires reporting to the Dean of Students. All students must abide by the Student Honor Code.
6. **Evaluations:** Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations. Toward the end of the semester, you will receive email messages requesting that you do this online: <https://ufl.bluera.com/ufl/>
7. **Accommodations:** Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and



discuss their access needs, as early as possible in the semester.

Assignments:

Active Attendance and Participation (15%)

In a seminar course, you are expected to come to all classes and to participate regularly. More than ten absences will result in an automatic F in the class. You are allowed two unpenalized absences during the semester so long as you communicate with me beforehand. If you face extenuating circumstances that prevent you from attending class regularly, please communicate with me.

Class participation means coming to class with the readings done, questions prepared, interesting passages underlined, comments and critiques noted in the margins. We will regularly break up into small groups so that you will have a chance to discuss your questions with your peers. If I notice that participation is low or that it appears a majority of you have not done the reading, I reserve the right to give a quiz or other means of assessment.

We will complete some small in-class activities such as reading comprehension questions, polls, and other assignments throughout this semester that will count towards your participation and attendance grade. If you are absent on the day we complete an in-class activity and you do not have a documented, excused absence, you will not be able to make up the assignment.

*Discussion Responses (20%) (500 words*4= 2,000 words)*

Throughout the semester, you will write and submit four responses by 11:59pm before class analyzing that day's assigned reading. We will then engage with your response in our class discussion.

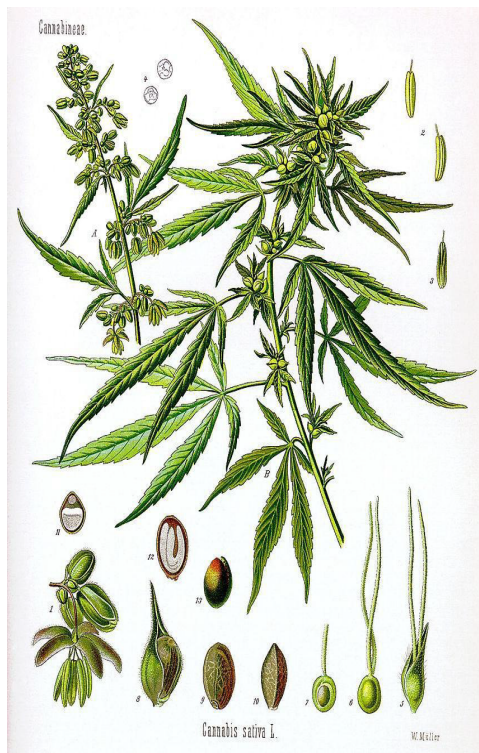
These responses on our Canvas discussion board can be completed on readings/meeting sessions of your choosing. Use close reading strategies and raise critical issues or observations concerned with textual meaning, such as a certain theme, motif, symbol, or character within the text. In addition, pose a question(s) about the text you wish the class to discuss.

Submit each response prior to the day of class by 11:59pm. For example, if we are discussing *The Jungle Book* on Wednesday, you'll post to the board by 11:59pm on Tuesday.

An example will be provided on Canvas.

*Glossary (10%) (250 words+100 words of comments * 2 entries=700 words)*

Two times over the course of the semester, you will define in 250 words two of the key theoretical concepts



from the online ‘Science and Literature Glossary’ (shared Google Doc available on Canvas). You will use your own words and provide a definition that refers explicitly to course material and so is specific to our class discussion and use of these concepts. You may not do the same term as someone else. This part of the assignment is worth 5%.

The other part of the assignment (5%) will be editing and commenting on two other students’ definitions (100 words for each comment). You will provide constructive feedback and correction where needed.

The first group of definitions will be due September 22nd with editing and commenting completed a week later, which will be a September 29th. The second group of definitions will be due November 3rd with editing and commenting completed by November 10th.

An example will be provided.

Close Reading Essay (20%) (1,200 words)

This essay will be a close reading of any one text on our syllabus that we have previously covered in class and supported by two peer-reviewed, critical articles.

An example will be provided on Canvas.

Florida Museum of Natural History Creative Assignment (15%) (1,300 words)

Visit the Florida Museum of Natural History and choose one object in the museum. As part of our unit on ecopoetics and creative uses of scientific findings, write a short story, a series of poems, or personal essay that incorporates the object of your choice in some fashion. You may choose to write from the perspective of that object, research its history and convey it in a poetic style, or abstract from the object a particular idea or meaning. This is your opportunity to “experiment” with a mode of writing you may not have utilized before.

Take-Home Final Exam (15%) (1,500 words)

There will be a take-home final exam that will consist of multiple short answer and short essay questions related to class topics. You will be asked to cite specific passages, refer to class discussions, and offer personal ideas as well. This exam must be submitted by the assigned deadline, and all responses must meet the minimum word count. Plagiarism of any kind (copying/rephrasing answers from another student, using other online resources) is strictly prohibited.



Course Schedule (tentative and subject to change)

Week 1

T-1/14: Syllabus and Canvas Orientation

R-1/16: What does it mean to be interdisciplinary?

Required Reading: 1) Neubauer, John. "Reflections on the 'Convergence' between Literature and Science." *MLN*, vol. 118, no. 3, 2003, pp. 740–54. *JSTOR*, <http://www.jstor.org/stable/3251945>. Accessed 23 Oct. 2024. 2) Battistini, Andrea. "Comparing Two Constructs: Literature and Science." *Annali d'Italianistica*, vol. 23, 2005, pp. 15–30. *JSTOR*, <http://www.jstor.org/stable/24009625>. Accessed 23 Oct. 2024 3) Isaac Asimov, "Reason"

S-1/19: Complete *Introduce yourself* on Canvas

Science and Story

What is the relationship between narrative and science?

Week 2

T-1/21: Darwin's Plots

Required Reading: 1) Charles Darwin, *Origin of Species* (selections) 2) Gillian Beer, *Darwin's Plots*

R-1/23: Darwin's Plots

Required Reading: 1) Charles Darwin, *Origin of Species* (selections) 2) Gillian Beer, *Darwin's Plots*

Week 3

T-1/28: Darwin's Plots

Required Reading: 1) Charles Darwin, *Origin of Species* (selections) 2) Gillian Beer, *Darwin's Plots*

R-1/30: Rachel Carson and Storytelling Science

Required Reading: Rachel Carson, *Silent Spring* (selections) and *The Sea Around Us* (selections)

Week 4

T-2/4: Science Fiction

Required Reading: [Octavia Butler, "Bloodchild"](#)

R-2/6: Science Fiction

Required Reading: 1) [Ted Chiang, "Exhalation"](#) 2) [Isaac Asimov, "Reason"](#)

Week 5

T-2/11: *In-Class Viewing:* DOCUMENTARY—*Dynasty*, ep. 1

Required Reading: German Lopez, ["The Tricks that Nature Documentaries Use to Keep You"](#)

[Watching](#)” and Timothy Clark, “Anthropomorphism” (Canvas)

R-2/13: *In-Class Viewing*: DOCUMENTARY, *Blue Planet*, ep. TBD

Required Reading: [Dunn et. al. “Evaluating the Impact of Blue Planet II on Plastic Consumption”](#)

S-2/16: Glossary Entry 1 Due by 11:59 p.m.

Science and Culture

How does culture influence science? How does science influence culture?

Week 6

T-2/18: Science and Indigeneity

Required Reading: Robin Wall Kimmerer, *Braiding Sweetgrass*, “Planting Sweetgrass”

R-2/20: Science and Spirit

Required Reading: Robin Wall Kimmerer, *Braiding Sweetgrass*, “Tending Sweetgrass” and “Picking Sweetgrass”

S-2/23: Glossary Entry Feedback 1 Due by 11:59 p.m.

Week 7

T-2/25: Science and Spirit: Close Reading Analysis

Required Reading: Robin Wall Kimmerer, *Braiding Sweetgrass*, “Braiding Sweetgrass” and “Burning Sweetgrass”

R-2/27: Scientific Attitudes towards Animals

Required Reading: [Gorilla Stories](#) (Chapter VII and Chapter XXXII) 2) Georg Wilhelm Steller, [Excerpts from *De bestiis marinis/The Beasts of the Sea*](#) (“The Manatee”) (1765)

You should have completed at least two discussion posts at this point.

Week 8

T-3/4: Animal Anecdotes and the Posthuman

Required Reading: 1) Donna Haraway, *Companion Species Manifesto* (selections), 2) Anne McConell “A is for Anecdote,” 3) Vinciane Desperet, “Y is for YouTube”

R-3/6: Science Cultures and the Self

Required Reading: Olivia Rosenthal, *To Leave with the Reindeer*, part I and II

Week 9:

T-3/11: Science Cultures and the Self

Required Reading: Olivia Rosenthal, *To Leave with the Reindeer*, part III

R-3/13: Science Cultures and the Self

Required Reading: Olivia Rosenthal, *To Leave with the Reindeer*, part IV

Week 10: No class—Spring Break

Imagining the Future: Cli Fi and Solarpunk

How do science and literature together help us imagine new kinds of futurities?

Week 11:

T-3/25: Cli Fi

Required Reading: Richard Powers, *Playground*

R-3/27: Cli Fi

Required Reading: Richard Powers, *Playground*

S-3/30: Close Reading Essay with Research Due

Week 12

T-4/1: Eco-poetics

Required Reading: Richard Powers, *Playground*

R-4/3: Eco-poetics

Required Reading: Richard Powers, *Playground*

S-3/30: Glossary Entry 2 due by 11:59 p.m.

Week 13

T-4/8: Artificial Intelligence

Required Reading: Richard Powers, *Playground*

R-4/10: Marine Biology

Required Reading: Richard Powers, *Playground*

S-4/6: Glossary Entry 2 Feedback due by 11:59 p.m.

Week 14

T-4/15: The Intersection of Science and Art

R-4/17: Field Trip: Florida Museum of Natural History

Week 15:

T-4/22: Tying knots and final exam discussion

Required Reading: TBD

R-4/24: NO CLASS-READING DAY

S-4/26: Florida Museum of Natural History Creative Assignment due at 11:59 p.m.

Week 16: NO CLASS—FINAL EXAM WEEK

T-4/30: Take Home Final Exam Due by 11:59 p.m.

Grading Scale

The writing assignments for this course are designed to meet the minimum requirements of the University Writing Requirement credit. To satisfy this requirement, every assignment's word count must be fulfilled. Submitted assignments short of the minimum word count will receive zero credit.

A 4.0 93-100	C 2.0 73-76
A- 3.67 90-92	C- 1.67 70-72
B+ 3.33 87-89	D+ 1.33 67-69
B 3.0 83-86	D 1.0 63-66
B- 2.67 80-82	D- 0.67 60-62
C+ 2.33 77-79	E 0.00 0-59

Grading Rubric

A- to A: You did what the assignment asked for at a high-quality level, and your work shows originality and creativity. Work in this range demonstrates all the qualities listed below for a B; but it also demonstrates that you took extra steps to be original or creative in developing content, solving a problem, or developing a verbal style or visual design, without error and/or infelicities.

B- to B+: You did what the assignment asked of you at a high-quality level. Work in this range needs little revision, is complete in content, is organized well, and shows special attention to style and visual design. May contain a few errors and/or infelicities.

C- to C+: You did what the assignment asked of you. Work in this range tends to need some revision, but it is complete in content and the organization is logical. The style and visual design are straightforward but unremarkable.

D- to D+: You did what the assignment asked for at a low-quality level. Work in this range tends to need significant revision. The content is often incomplete and the organization is hard to discern. Verbal style and visual design are often non-existent or chaotic.

E: Failure means the assignment requirements were not met. If you gave an assignment an honest try and still received an 'E,' you may not be ready to succeed in this course.

For information on UF Grading policies, see:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> Grade Appeals. In 1000- and 2000-level courses, students may appeal a final grade by filling out a form available from Carla Blount, Program Assistant, in the Department office (4008 TUR). Please contact Ms. Blount at cblount@ufl.edu Grade appeals may result in a higher, unchanged, or lower final grade.

University Policies

Sexual Harassment

UF's policy on Sexual Harassment: The University of Florida is committed to providing a safe educational, working, and residential environment that is free from sexual harassment or misconduct directed towards any and all members of the community:

<https://titleix.ufl.edu/about/title-ix-rights/>

Disability and Accommodations

Students with disabilities who are requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>), which will provide appropriate documentation to give your instructor early in the semester.

Mental Health

Students who are in distress or who are in need of counseling or urgent help: please contact umatter@ufl.edu or 352-392-1575 so that a team member can reach out to you. UF's Counseling and Wellness Center offers additional support: 352-392-1575, or contact them online:

<https://counseling.ufl.edu/>

Food Resources

UF Field & Fork: free basic staples, bread, and frozen meats, as well as fresh seasonal produce from the Field & Fork Farm and Gardens. There is no proof-need required to shop at the Pantry, but please bring your physical Gator 1 Card when you visit! <https://pantry.fieldandfork.ufl.edu/>

Krishna Lunch: low-cost vegetarian and vegan lunches in the Plaza 11am-2pm MF and at Krishna House <https://krishnalunch.com/>