



# ENGLISH 290: WRITING FOR STEM & HEALTH CAREERS

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Sample Syllabus

## COURSE DESCRIPTION

This course offers an introduction to the practice and conventions of writing about science, both to fellow scientists and to a broader public of non-professionals. The semester is structured around two distinct but intertwined aims. First, this course will prepare you to carefully and critically read scientific writing composed for various audiences and purposes, paying particular attention to the ethical and political stakes of such writing. Second, the course offers practical and ready-to-use resources and strategies for science writing both in and outside of the academy.

We will practice writing and reading about science through a number of practical and creative writing assignments, ranging from scientific abstracts, to press releases, to political advocacy letters. The course also features a larger research project that will require students to produce an annotated bibliography on a topic relevant to their majors. Over the course of the semester, we will also challenge ourselves to return to the questions of why we write about science and how a wide variety of science communication genres—from conversations in an elevator to SciFi stories—matter in today's world.

## STUDENT LEARNING OUTCOMES

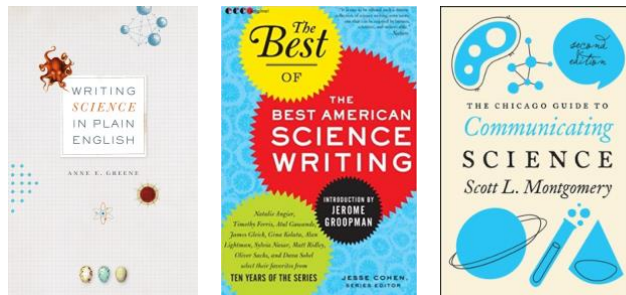
- ❖ Perform constructive critical analysis of science communication in real-world settings, paying particular attention to the ethical and political stakes of this communication.
- ❖ Cultivate practical science writing and communication skills for various audiences and rhetorical purposes.
- ❖ Gain familiarity with the structure and function of scientific papers, as well as the discourse conventions in a field, in order to practice employing these conventions in one's own writing.
- ❖ Master strategies for clearly and efficiently communicating complex material.
- ❖ Develop resources for approaching science writing creatively, with attention to beauty, humor, style, and reader interest.

## WRITING-INTENSIVE LEARNING OUTCOMES

1. *Demonstrate rhetorical knowledge* by responding effectively to a rhetorical situation with the appropriate level of style and understanding of conventions of a particular genre.

- ❖ Each of the assignments for this course will require practicing a different genre of writing about science and each will also focus on engaging a different audience. Research pitches and press releases will ask students to consider how to frame complex research for a non-expert, public audience. The advocacy letter encourages students to experiment with writing for political purposes, whereas the creative SciFi piece asks students to think about how science can provide inspiration for art and entertainment. The annotated bibliography and literature review, however, offer opportunities to develop skills in writing about the STEM fields within the academy and among fellow experts.
  - ❖ Total Pages of Required Formal Writing: 17
2. *Demonstrate critical thinking and reading* by deploying writing as a meaning-making process to summarize, analyze, evaluate, and synthesize ideas and information from multiple sources
    - ❖ My assignments require various levels critical thinking and reading about sources, as described below:
      - **Summarize:** Research Pitch, Scientific Abstract
      - **Analyze and Evaluate:** Annotated Bibliography, Press Release
      - **Synthesize:** Advocacy Letter, SciFi Short Story
  3. Understand and use writing as a *process* involving drafting, writing, and rewriting.
    - ❖ This course will employ a recursive writing process through the following measures:
      - **Weekly Writing Workshops:** 30-50 minutes per week will be devoted to in-class peer workshopping of in-process drafts
      - **Written Instructor Feedback:** The instructor will provide draft comments on rough drafts of all formal assignments: the scientific abstract, the annotated bibliography, the press release, the advocacy letter, and the SciFi short story.
      - **Required Office Hour Meetings:** In addition to written feedback, the instructor will hold meetings with each student to provide oral feedback on the two longer assignments: the annotated bibliography, as well as the SciFi short story.
  4. *Demonstrate knowledge of the basic conventions* of the target language by controlling syntax and grammar for clear communication of meaning.
    - ❖ In this case, we will be focus on the “basic conventions” of writing about science and medicine both in and outside of the academy. Readings from our course texts will supply instruction on these conventions, and the assignments will allow students opportunities to practice them.

## REQUIRED COURSE TEXTS



Anne E. Greene, *Writing Science in Plain English* (ISBN: 978-0226026374)

Jesse Cohen, Ed., *The Best of the Best American Science Writing* (ISBN: 978-0061875007)  
 Sean L. Montgomery, *The Chicago Guide to Communicating Science*, 2<sup>nd</sup> Edition (ISBN:

## GRADING

Assignment	Percentage of Final Grade
<i>Research Pitch</i> An oral “pitch” summarizing a complex research project in 1-2 minutes.	5%
<i>Scientific Abstract</i> An abstract of 1 to 1.5 pages describing a scientific article relevant to your interests.	10%
<i>Annotated Bibliography</i> An annotated bibliography of 5 to 6 pages summarizing the extant research in a topic relevant to your interests.	30%
<i>Press Release</i> A scientific press release of 2 pages covering a recent scientific finding relevant to your interests.	15%
<i>Advocacy Letter</i> A congressional letter of 1 to 2 pages on a policy issue relevant to your field.	15%
<i>SciFi Short Story</i> A creative fiction piece of at least 5 pages inspired by a concept or research finding relevant to your field.	15%
<i>Attendance &amp; Participation</i>	10%

## SCHEDULE OF READINGS AND ASSIGNMENTS

*Subject to Change*

### Unit One: The Who, What, Where, When, and Whys of Scientific Writing

Weeks 1-2

Readings: Greene, Chapter One: “Why Write Science in Plain English,” and Chapter Two: “Before You Write,” Montgomery, Chapter 9, Selections from *Best of* and other sources.

*Due:* Research Pitch; Rough Draft of Scientific Abstract

## **Unit Two: Reading & Writing Scientific Articles**

Weeks 2-6

Readings: Montgomery, Chapters 3-4, 9

*Due:* Scientific Abstract

## **Unit Three: Telling a Story**

Weeks 7-8

Readings: Greene, Chapter Three: “Tell a Story,” Selections from *Best of*

*Due:* Annotated Bibliography—Rough Draft; Literature Review Prewriting—Storyboard

\*Week 8: Meet with Instructor about Annotated Bibliography and Literature Review Drafts\*

## **Unit Four: Science Style: Brevity, Clarity, and Discipline-Specific Language**

Weeks 9-10

Readings: Greene, Chapters 4-6, 10-11, Montgomery, Chapter 5

*Due:* Literature Review—Rough Draft (Week 9); Annotated Bibliography and Literature Review—Final Draft (Week 10)

\*Week 9: Meet with Instructor about Annotated Bibliography and Literature Review Drafts\*

## **Unit Five: Science to and for the Public**

Weeks 10-14

Readings: Montgomery, Chapters 13, 15, 17-19, Selections from *Best of*, as well as other science journalism, podcasts, radio, etc.

*Due:* Press Release—Rough Draft (Week 10), Press Release—Final Draft (Week 11), Advocacy Letter—Rough Draft (Week 13), Advocacy Letter—Final Draft (Week 14)

## **Unit Six: SciFi**

Weeks 15-16

Readings: Selections from *Best of*, selected sci-fi short stories

Assignments:

- SciFi Short Story

*Due:* SciFi Short Story (end of term)

\*Weeks 15 and 16: Meet with Instructor about Stories\*