

BIOL5012.280 Scientific Writing (Spring 2023)

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Office Hours: By appointment; I am generally around mornings to help

Class sessions: Wednesdays 5:30 – 7:20pm, Bolin 209

Course Overview

This course is intended to help students develop the skills required for professional scientific writing and publication and to help students become better writers overall. Effective communication is essential in the current climate of disinformation regarding science and its practice. Students will be tasked with a variety of writing projects to help them learn to properly prepare research proposals, journal articles, grants, and writing meant for non-science audiences. Each writing space is different, requiring a different focus on content and a firm knowledge of one's audience.

Required Materials

1. **Recommended Text:** Booth, Colomb, Williams, Bizup, and Fitzgerald. *The Craft of Research*. 4th edition. (University of Chicago Press). Buy from Amazon (it is cheaper) or another bookseller. This book is not in the bookstore. Note: you can substitute other research/science writing textbooks so long as those books are graduate level and deal with both how to come up with research questions and write about them. There are also free online resources—you need some sort of reference to help you however.
2. Access to D2L and other web resources as instructed.
3. Microsoft Word or the ability to convert to Word files or pdfs. Please do NOT send me Google Docs.

Deadlines and Drafts

You must complete all assignments on time; no late work will be accepted. You are graduate students and are expected to perform at a level higher than the undergraduates; thus, you must learn to adhere strictly to deadlines. This is a non-negotiable policy. This basically means you must write – a lot – every week, if not daily.

Attendance

Attendance is mandatory. This class only meets once per week, and you are expected to be here and to stay for the entire class period. If you miss class, you must provide an explanation for your absence, and it must have been for an exceptionally good reason.

Problems with the Mechanics of Writing

You will be asked to write a great deal in this course. If you require help with the basic mechanics of writing (sentence structure, grammar), you will need to work with the Writing Center. I will help you with the content of your papers, but I will not typically edit student work at the sentence level since that is what YOU are supposed to be learning to do. You may work with other students in the class on issues of grammar, etc., or with anyone else willing to work with you (please do not bug other faculty members), but ultimately you should have learned basic writing skills long before now. Final copies of assignments that are turned in with basic writing problems will be graded harshly and will result in poor grades in the class.

Grading

Grades will be given only on final drafts. Because what you turn in is supposed to be a final draft (of more than one working draft), you will not get to rewrite it once it is turned in. Please do not take this to mean you can turn everything in late, either. You are expected to participate actively in the class either by working on writing in class or by speaking/discussing the day's given topic. You are expected to work multiple drafts of each assignment (often at the same time) and turn in your best work. Taking your writing seriously is a form of participation.

Grades will be assessed via straight percentage with 90% and above = A, 80-89% = B, 70-79% = C.

Assignment	Point Value
Assignment 1: The Academic Biography	100
Assignment 2: Edited Manuscript	100
Assignment 3: Abstract	100
Assignment 4: Op Ed Piece	100
Assignment 5: Scientific Poster (plus participation)	150
Assignment 6: Research Question	50
Assignment 7: Annotated Bibliography	50
Assignment 8: Specific Aims	50
Assignment 9: Graphical Abstract	100
Assignment 10: Thesis Proposal	100
Participation	50
Attendance	50
TOTAL COURSE POINTS	1000

General Formatting Requirements

All assignments must be typed using the following formatting:

- 12pt Times New Roman font
- Double-spaced
- 1-inch margins all the way around
- Page numbers on all pages
- Justified left margin, ragged right margin (do NOT use full justification)
- In the header, your name, date, title, draft number, and assignment type

All assignments are to include a suitably descriptive title and should be consistent throughout for things most people never pay attention to: putting in or leaving out spaces between numerals and their units, using or not using the Oxford (terminal) comma, etc. Consistency is as important as the words on the page.

Plagiarism

All forms of plagiarism are to be consciously and methodically avoided at all costs. Plagiarism is NEVER acceptable and there is no such thing as 'accidental' plagiarism. Any assignment submitted in this class that is found to contain any form of plagiarism, no matter how minor an infraction, will receive a zero for a grade and you will receive no participation credit for that assignment. A second infraction will earn you an "F" in the course.

Cellphones and Laptops

Silence or otherwise turn off your cellphone (“vibrate” is NOT the same as silenced) while in class. Please do NOT play on your cellphone while in class (no texting, etc.). Laptops may be used so long as they are used for writing, taking notes, reading class materials—you may NOT play on them while in class.

How the Schedule Works

We will constantly be introducing new topics. A draft of the assignment will be due in class the week following its introduction so that we can talk about problems and go through a few to learn editing. You will write and rewrite drafts as necessary until they are acceptable to me. Once introduced, we can talk about any assignment in class so that you can get feedback on it if you need help; we can do this until the day the assignment is due.

Schedule

Date	Topic	Chapter Readings ¹	Assignment Given	Assignment Due
Jan 18	Course Introduction The academic biography	1 and 2	<u>Assignment 1:</u> Academic Biography	None
Jan 25	Dissecting a Science Paper	Parts of a Scientific Paper (D2L 1)	None	Assignment 1 (group edit)
Feb 1	Editing Science Papers Papers for Posters (instructions)	17 Student Guide to Proofreading and Writing (D2L 2)	<u>Assignment 2:</u> Edited Manuscript (Squirrel Paper)	
Feb 8	Writing an Abstract	Writing Abstracts for Scientific Conferences (D2L 3)	<u>Assignment 3:</u> Abstract (Paper for Abstract)	Assignment 2 (group edit) Assignment 1 DUE FINAL
Feb 15	Writing an Op Ed Piece	Science op eds	<u>Assignment 4:</u> Op Ed Piece	Assignment 3 (group edit)
Feb 22	The Art of the Poster (Paper picks and discussion)	Designing Scientific Posters (D2L 4)	<u>Assignment 5:</u> Scientific Poster	Assignment 4 (group edit)
Mar 1	Writing a Thesis Proposal: Developing a Research Question/Problem	3 and 4 How to Write Research Proposals (D2L 5)	<u>Assignment 6:</u> Research Question	
Mar 8	Writing a Thesis Proposal: The Annotated Bibliography	5 and 6 Annotated Bibliography (D2L 6)	<u>Assignment 7:</u> Annotated Bibliography	Assignment 6 (group edit)
Mar 15	SPRING BREAK NO CLASS			
Mar 22	Writing a Thesis Proposal: The Specific Aims	7 – 11 NIH Grant Applications (D2L 7)	<u>Assignment 8:</u> Specific Aims	Assignment 7 (group edit) Assignments 2, 3, and 4 DUE FINAL
Mar 29	Writing a Thesis Proposal: The Graphical Abstract	How to Make a Graphical Abstract	<u>Assignment 9:</u> Graphical Abstract	Assignment 8 (group edit)
Apr 5	Writing a Thesis Proposal: The Whole Proposal	12 – 17	<u>Assignment 10:</u> The Proposal	Assignment 9 (group edit)
Apr 12	Discuss progress on POSTERS: You should at least have a draft of your poster to show the class for feedback.			
Apr 19	Discuss progress on Thesis Proposals: Students will present parts of their proposal to the class so that we can work on the writing process. Pick sections you are having trouble with, or sections where you want feedback.			

¹ From *The Craft of Research*. This is recommended reading topically. However, you need to read the book as it will benefit you. In other words, read those sections that you have difficulty with, such as the section that talks about crafting a hypothesis from a question.

Date	Topic	Chapter Readings ¹	Assignment Given	Assignment Due
Apr 26	Research Symposium: Poster Presentations (to the class)	1. 2. 3. 4.		Assignment 5 DUE FINAL
May 3	Research Symposium: Poster Presentations (to the class)	1. 2. 3. 4.		Assignment 5 DUE FINAL
May 10	FINALS WEEK: All materials should have been turned in before now except your completed proposal!! We will not meet this week.			Assignments 6 – 10 DUE as a WHOLE