

# ***Scientific Writing for REU (and beyond!)***

## **Summer 2021**

Instructor: Charlotte Wood  
cwood12@nd.edu

Organizer: Prof. Mark Caprio  
mcaprio@nd.edu

---

### **Class meetings**

Date and Time: June 8<sup>th</sup> - July 30<sup>th</sup>, every other Tuesday, 10:00 AM - 11:30 AM (Eastern Time: UTC-4)

Group Meeting Dates: June 8<sup>th</sup>, June 22<sup>nd</sup>, July 6<sup>th</sup>, July 20<sup>th</sup>

Classroom: 127 Nieuwland Science Hall

Zoom Meeting ID: 910 6655 6346

Password: 010956

---

### ***Description***

#### **Why this course?**

The written report, which is the culmination of your summer REU experience, is often the most daunting and difficult task of the program. Throughout this writing course, you will learn how to critically think about your research and begin planning and drafting your report from an early stage, helping you to overcome the infamous writer's block. Furthermore, this course is about learning how to *effectively* communicate science. In other words, we do not write papers to just list our results. Rather, we want to craft a meaningful story in which we present our research in a manner that our readers can easily follow and understand.

Taking this course will not only improve the quality of your written report; the skills you will develop are certainly transferable to any future scientific writing beyond your REU experience. Examples not too far in the distant future include grad school statements of intent, writing grants, an undergraduate thesis, or perhaps publications in graduate school if you decide to go that route. So if you haven't thought too much about what goes into writing an effective/persuasive paper before, why not take this course and invest in your future?

---

### ***Course Structure***

The main goals of this course can be summarized as followed:

- Learn how to “brainstorm”, organize, plan, and draft your report efficiently and effectively;
- Learn how to avoid common mistakes that undermine the effectiveness of a scientific document;

- Learn how to make the structure and presentation of your research clear and persuasive so that other scientists will read your paper; understand and believe the points you want to get across; and come away with a positive impression of you and your research.

In order to achieve those goals, we will be following a structure based on a condensed version of Prof. Mark Caprio's graduate course "Scientific Writing for Physicists". The backbone of this course will be weekly readings from Joshua Schimel's "Writing Science" and/or Michael Morrison's graduate course notes on "Effective Scientific Writing" from the University of Oklahoma (chapters are from his draft manuscript under contract with Oxford University Press). Due to the short nature of this course, we will not be able to cover a majority of the chapters. Rather, we will cover a select few that focus on planning and drafting the major sections of a scientific document (e.g., your research paper).

### **Group meetings**

We will meet as a group four times throughout the semester every other week in an informal seminar style (group dates are posted at the top of the syllabus). As there will be little — if any — lecturing, you will need to make every effort in completing the assigned readings and/or short exercises prior to coming to the group sessions in order to get anything meaningful out of these sessions. The last 30 minutes or so will be reserved for "workshops"; in congruence with the theme of the group session, you will break out into small groups and critically read a section of another student's paper and provide feedback.

### **Individual Meetings**

The weeks in-between will be reserved for individual meetings with the course instructor. You'll be expected to make at least two appointments, one during the week of June 29<sup>th</sup> and another during the week of July 27<sup>th</sup>. These individual meetings can be very flexible, ranging from focusing on planning/working on a section of your paper, to revising prose and overall polishing. If you would like to meet more often than the required two appointments, there will be additional opportunities during the weeks of July 13<sup>th</sup> and perhaps, the final week before the symposium.

---

## ***Reading Materials***

Joshua Schimel, *Writing science: How to write papers that get cited and proposals that get funded* (Oxford University Press, 2012)

Michael A. Morrison, *Effective scientific writing: Recipes and tactics for student of physics, engineering, and other sciences* (Oxford University Press, in preparation).

(The chapters needed from these materials will be on e-reserve as needed)