

# Physics 496: Communicating in Physics—Writing Papers and Giving Talks

Spring 2025

Semester at a Glance

Meets 2:00–4:50 p.m. Fridays, 158 Loomis Laboratory of Physics

Class attendance is mandatory unless excused; [Zoom link](#)

**Writing Workshop** is held weekly, unless otherwise noted; be sure to bring your laptop to class!

**In-Class Activities** require your presence and *active* participation

**Homework Assignments** are uploaded to the course portal on [my.physics](#) by the posted deadline<sup>1</sup>

Schedule is subject to change; changes will be posted to [course website](#)

Questions about the schedule should be directed to [Celia Elliott](#)

## January 24—first day of class

Course introduction (cme)

Communicating in science—“The Up Goer Five” (JLR)

The importance of a title (cme)

How to read a physics paper (BH)

**No homework due today**

## January 31

Literature search group activity (JLR)

How to get started if you hate to write (cme)

How to write an abstract (cme)

Writing an abstract (BH)

**HW #1—“Active Reading for Physics Papers”**

## February 7

Introduction to Writing Workshop—rationale and goals (JLR)

[WW #1—“Finding the Right Word” \(JLR\)](#)

How to evaluate a scientific talk or colloquium (BH)

Tips for giving a good talk (cme)

Assign “Explaining Physics Concepts” teams

**HW #2—“Title and Abstract”**

## February 14

[WW #2—“Using the Right Word” \(JLR\)](#)

**HW #3—“Best Practices for Oral Presentations”** (short talk presented in class)

## February 21

[WW #3: “Four-Letter Words in Science Writing” \(cme\)](#)

Collaborative writing (BH)

**HW #4—Explaining Physics—Draft**

**Colloquium Report #1 Due**

---

<sup>1</sup> Deadline dates and times are listed on each written homework assignment.

## February 28

WW #4: "Ambiguous Pronouns" (JLR)

**Guest speaker—Professor Lance Cooper, "How to Pick a Graduate School" 2:00 p.m.**

The scientific publication process and peer review (BH)

**HW #5—"Explaining Physics"—FINAL VERSION**

## March 7

How to write instructions (JLR)

Writing Instructions—group activity (JLR)

Revising and editing your work (cme)

Technical Writing 101 (Review the handout prior to class!) (cme)

**HW #6—"Peer Review"**

## March 14

WW #5: "*Them Thar* Indirect Openings" (JRL)

Tips for making better scientific talks (BH)

Reference rules and styles in scientific writing (JRL)

What to reference, why, and how—group activity (JRL)

**HW #7—Short Science Talk—Draft**

## March 21—NO CLASS—SPRING BREAK

## March 28

Effective figures and figure captions (cme)

Rules for writing numbers (Review the handout prior to class)

**HW #8—Short Science Talk—In Class Presentation** (Parallel Sessions in Room 158 & Room 236)

**Last Day to Submit Re-writes for Colloquium Report #1**

## April 4

WW #6: "The Three-Preposition Rule (3PR)" (cme)

Making verbs work (cme)

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

Read before class "[Ethics in Physics: The Need for Culture Change](#)"

**HW #9 "Evaluating Figures and Captions"**

## April 11

WW #7: "Making Verbs Work" (JLR)

Scientific posters (JLR)

**Guest Speaker—Professor Taylor Hughes, "How to Survive Graduate School"**

**HW #10—Making Figures and Captions**

**Colloquium Report #2 Due**

### April 18

**Guest Speakers—"Physics Careers in Industry"**

WW #8: "Parallel Construction" (JLR)

Fermi problems (BH)

**HW #11—"Scientific Poster"—DRAFT**

### April 25

WW #9: "Shooting for 'Shorth'" (JLR)

Intellectual property and copyright (cme)

Class activity: Eliminating fluff in scientific writing (Review the handout prior to class)

**HW #12 "Scientific Poster"—FINAL**

### May 2—last day of class

WW Bonus (optional—complete on your own)—"Editing Practice"—submit by May 9 for credit

The Last Word on "Due To" (Ms Particular)

**HW #13 "Live Poster Presentation" (presented in class)**