

**Ask early! Ask often!**

**Physics 496: Communicating in Physics—Writing Papers and Giving Talks  
Fall 2022**

**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

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

**Homework Assignments** are uploaded to the course portal on [my.physics](#) by the posted deadline\*

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

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

**August 26—first day of class**

Course introduction and web tour (TLH) (Q&A—read the syllabus and come prepared)

Technical communications for physicists (cme)

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

Effective titles (cme)

**No homework due today**

**September 2**

Introduction to “Writing Workshop”—rationale and goals (JLR)

WW #1—“Finding the Right Word” (JLR)

How to read a physics paper (TLH)

Standards and values for physicists (group activity)

Ethics overview (cme)

**HW #1—“Evaluating Titles”**

**September 9**

WW #2—Literature search group activity (JLR)

How to evaluate a scientific talk or colloquium (TLH)

How to write an abstract (cme)

Writing an abstract—collaborative activity + group presentations

**HW #2—“Deconstructing a Paper for Active Reading”**

**September 16**

WW #3—“Using the Right Word” (JLR)

Reference rules and styles in scientific writing (cme)

Latin terms in scientific writing (cme)

**Guest speaker—Professor S. Lance Cooper**

**HW #3—“Title and Abstract”**

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\* Deadline dates and times are listed on each written homework assignment.

## September 23

WW #4: “The Use of Four-Letter Words in Science Writing” (JLR)

How to get started if you hate to write, Part I (Outlines) (cme)

How to write instructions (cme)

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

Writing Instructions

**HW #4—“Proper Referencing”**

**Colloquium Report #1 Due**

## September 30

WW #5: “Ambiguous Pronouns” (JLR)

How to get started if you hate to write, Part II (Paragraphs) (cme)

**Guest Speaker—Elizabeth Goldschmidt, Dept of Physics**

Initial Meeting of Journal Club Teams

**HW #5—“Explaining Physics” Draft**

## October 7

Revising and editing your work (cme)

The scientific publication process (TLH)

Peer reviewing (TLH)

**Guest speaker—Jeff Filippini, Dept of Physics**

**HW #6—“Explaining Physics Concepts” Final Version**

## October 14

WW #6: “Them *Thar* Indirect Openings” (JLR)

Giving good science talks (TLH)

Class activity: Rules for capitalization and acronyms (Review the handout prior to class)

Effective figure captions (cme)

**Guest speaker—Wolfgang Pfaff, Dept of Physics**

**HW #7—Peer Reviews**

## October 21

WW #7: “The Three-Preposition Rule (3PR)” (JLR)

Voice and tense—Making verbs work (cme)

How to present a journal-club talk (cme)

Fermi problems (TLH)

Making estimates in research (group activity)

**Have team scribe submit your paper selection for your journal-club talk**

**HW #8—Short Science Talk Draft Slides**

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

## October 28

WW #8—“Making Verbs Work” (JLR)

Class activity: Rules for expressing numbers (Review the handout prior to class)

**HW #9—Short Science Talk** (presented during class)

**Colloquium Report #2 Due**

**Arrange for your JC team to meet with Professor Hughes by Nov 11!**

## **November 4**

WW #9—“Parallel Construction”

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

Acknowledgments in papers, talks, and posters (cme)

Guest speaker—Anne Sickles, Dept of Physics

**HW #10 Evaluating Figures and Captions**

## **November 11**

WW #10: “Shooting for ‘Shorth’” (JLR)

Writing a statement of purpose for grad school admissions (cme)

Surviving graduate school (TLH)

**HW #11—Making Your Own Figures and Captions**

## **November 18**

Scientific posters (TLH)

Intellectual property and copyright (cme)

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

**HW #12 Resume and Statement of Purpose or Cover Letter**

**MONDAY, November 28**—Email your nearly final journal club slides to [phys496@physics.illinois.edu](mailto:phys496@physics.illinois.edu) by **NOON!**

## **December 2**

WW Bonus (optional—complete on your own)—“Editing Practice”

The Last Word on “Due To” (Ms Particular)

**HW #13 Journal Club Talk** (presented during class)