

Physics 496: Communicating in Physics—Writing Papers and Giving Talks Spring 2024

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 deadline¹

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

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

January 19—first day of class

Course introduction (MGP)—Class questions and discussion—read the syllabus, summary of assignments, and course schedule, poke around the website, and come prepared with questions

Technical communications for physicists (cme)

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

Effective titles (cme)

No homework due today

January 26

Literature search group activity (JLR)

How to read a physics paper (MGP)

Standards and values for physicists (group activity)

Ethics overview (cme)

HW #1—“Evaluating Titles”

February 2

Introduction to Writing Workshop—rationale and goals (JLR)

WW #1—“Finding the Right Word” (JLR)

How to evaluate a scientific talk or colloquium (MGP)

How to write an abstract (cme)

Writing an abstract (collaborative activity)

HW #2—“Active Reading for Physics Papers”

February 9

WW #2—“Using the Right Word” (JLR)

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

Celia’s Tips for Good Talks (cme)

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

HW #3—“Title and Abstract”

¹ Deadline dates and times are listed on each written homework assignment.

February 16

WW #3: “Four-Letter Words in Science Writing” (JLR)

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

HW #4—Best Practices for Technical Presentations

Colloquium Report #1 Due

February 23

Revising and editing your work (cme)

Guest speaker—Professor [Lance Cooper](#), “How to Pick a Graduate School” 3:00 p.m.

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

HW #5—“Explaining Physics” Draft

March 1

WW #4: “Ambiguous Pronouns” (JLR)

How to write instructions (JLR)

The scientific publication process and peer review (MGP)

Guest speaker—Dr. Dustin Wooten, Head of Image Analysis, Principal Research Scientist II, AbbVie

HW #6—“Explaining Physics” Final Version

March 8

WW #5: “Them That Indirect Openings” (cme)

Reference rules and styles in scientific writing (cme)

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

Guest speaker—Professor Taylor L. Hughes, “How to Survive Graduate School”

First meeting of journal-club teams—group activity

HW #7—Peer Review

March 15

Spring Break—No class

March 22

WW #6: “The Three-Preposition Rule (3PR)” (JLR)

Effective figures and captions (cme)

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

Arrange for your JC team to meet with Professor Gross Perdekamp before April 5!

March 29

Making verbs work (cme)

HW #9 Short Science Talk (presented during class; parallel sessions in Room 158, Room 151, and Room 222)

Colloquium Report #2 Due

April 5

WW #7—“Making Verbs Work” (JLR)

How to present a journal-club talk (cme)

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

HW #10—Evaluating Figures and Captions

April 12

WW #8—“Parallel Construction”

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

Rules for capitalization and acronyms

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

HW #11—Making Your Own Figures and Captions

April 19

WW #9: “Shooting for ‘Shorth’” (JLR)

Scientific posters (JLR)

Intellectual property and copyright (cme)

Writing Instructions—group activity (JLR)

HW #12 Resume and Statement of Purpose or Cover Letter

MONDAY, April 22—Email your nearly final journal club slides to phys496@physics.illinois.edu by **NOON**

April 26—last day of class

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)