

Ask early! Ask often!

Physics 496—Introduction to Physics Research—Spring 2021

Semester at a Glance

Meets 2:00–4:50 p.m. Fridays, online <https://illinois.zoom.us/j/98244722496>

Writing Workshop is held weekly, unless otherwise noted

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

Homework Assignments must be uploaded to the course portal on my.physics by the deadline*

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

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

January 29—first day of class

Course introduction and web tour (Class questions and discussion—come prepared)

Technical communications for physicists

Introduction to Writing Workshop—rationale and goals

WW #1—“Finding the Right Word”

Evaluating a science talk or colloquium

Effective titles

No homework due today

February 5

WW #2—Literature search group activity

How to read a physics paper

Standards and values for physicists (group activity)

MS Word tutorial

HW #1—“Evaluating Titles”

February 12

Avoiding plagiarism

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

How to write an abstract

Writing an abstract—collaborative activity + group presentations

HW #2—“Understanding a Paper”

February 19

WW #3—“Using the Right Word”

Reference rules and styles in scientific writing

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

Mass, count, and collective nouns

HW #3—“Title and Abstract”

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

February 26

WW #4: “Four-Letter Words in Science Writing”

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

MS PowerPoint tutorial

Class activity: Explaining physics (“The Upgoer Five”)

HW #4—“Proper Referencing”

Colloquium Report #1 Due

March 5

Revising and editing your work

WW #5: “Ambiguous Pronouns”

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

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

HW #5—“Explaining Physics” Draft

March 12

The scientific publication process

WW #6: “Them *Thar* Indirect Openings”

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

Peer reviewing

Guest speaker—TBA

HW #6—“Explaining Physics Concepts” Final Version

March 19

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

Effective science talks

CliftonStrengths Workshop—Illinois Leadership Center

First meeting of journal-club teams

HW #7—Peer Reviews

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

March 26

WW #8—“Making Verbs Work”

How to present a journal-club talk

Voice and tense—Making verbs work

Guest speaker—TBA

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

HW #8—Short Science Talk Draft Slides

Colloquium Report #2 Due

April 2

WW #9—“Parallel Construction”

Creating good figures and captions

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

Arrange for your JC team to meet with Professor Madhavan by !

April 9

WW #10: “Shooting for ‘Shorth’”

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

Fermi problems

Making estimates in research (group activity)

Acknowledgments in papers, talks, and posters

HW #10 Evaluating Figures and Captions

April 16

Applications—CVs, resumes, and cover letters

Writing a statement of purpose for grad school admissions

Guest speaker—TBA

HW #11—Making Your Own Figures and Captions

April 23

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

Scientific posters

Intellectual property and copyright

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

HW #12 Resume and Statement of Purpose or Cover Letter

Last Day to Submit Re-writes for Colloquium Report #2

Monday, April 26— Mail your nearly final journal club slides to phys496@physics.illinois.edu by **NOON!**

April 30—last day of class

The Last Word on “Due To”

HW #13 Journal Club Talk (presented during class)