

Ask early! Ask often!

Physics 496—Introduction to Physics Research—Fall 2019

Semester at a Glance

Meets 2:00–4:50 p.m. Fridays, 222 Loomis

Writing Workshop is held weekly, unless otherwise noted; **laptops required**.

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

Homework Assignments must be emailed to phys496@physics.illinois.edu by the deadline.*

August 30—first day of class

Introduction to Writing Workshop—rationale and goals

WW #1—“Finding the Right Word”

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

Evaluating a science talk or colloquium (NM)

Effective titles (cme)

No homework due today

September 6

WW #2—Literature search group activity

How to read a physics paper (NM)

Standards and values for physicists (group activity)

HW #1—“Evaluating Titles”

September 13

WW #3—“Using the Right Word”

Fermi problems (NM)

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

Technical Writing 101 (Review the handout prior to class)

Making Estimates in Research (group activity)

No Homework This Week—Physics GRE Tomorrow

September 20

NO WW today— but bring your laptop and come to class promptly at 2:00 p.m.

How to write an abstract (cme)

Writing an abstract—collaborative activity + group presentations

“Image Formation by Induced Local Interactions: Examples Employing Nuclear Magnetic Resonance,”
Nature **242**, 190–191 (1973).

HW #2—Understanding a Paper

Colloquium Report #1 due

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

September 27

Avoiding plagiarism (NM)

Reference rules and styles in scientific writing (cme)

Guest speaker—Professor [Lance Cooper](#), “How to Pick a Graduate School”

HW #3—Abstract and Title

October 4

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

WW #5: “Ambiguous Pronouns”

How to build a logical scientific argument (NM)

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

How to get started if you hate to write, Part II

HW #4—Proper Referencing

Last day to submit rewrites for Colloquium Report #1

October 11

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

Creating good figures (NM)

Tips for figure captions (cme)

Peer reviewing (NM)

Guest speaker—Professor [Dale Van Harlingen](#), Dept of Physics, 2:00 p.m.

HW #5—Explaining Physics Concepts

October 18

WW #7: Evaluating figures team activity and team presentations

Effective science talks (cme)

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

Using PPT to outline a short science talk (cme)

Revising and editing your work (cme)

First meeting of journal-club teams

HW #6—Peer Reviews

Colloquium Report #2 due

October 25

WW #8—“The Three-Preposition Rule (3PR)”

Template for a journal-club presentation (cme)

Voice and tense—Making verbs work (cme)

Guest speaker—Professor [Yonatan Kahn](#), Dept of Physics, 2:00 p.m.

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

No Homework This Week—Physics GRE Tomorrow

November 1

WW #9—“Making Verbs Work”

Collaborative writing in physics (NM)

Acknowledgments (cme)

Intellectual property and copyright (cme)

HW #7—Evaluating Figures and Captions

Last day to submit rewrites for Colloquium Report #2

November 8

WW #10: “Writing Instructions” team activity and team presentations

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

HW #8 Making Your Own Figures and Captions

Make arrangements for your JC team to meet with Professor Mason next week

Colloquium Report #3 due

November 15

Applications—CVs, resumes, statements of purpose, and cover letters (cme)

Guest speaker—[Professor Sangjin Kim](#), Dept of Physics, 2:00 p.m.

HW #9—Short Science Talk (presented during class; slides emailed to instructors before class)

November 22

WW #11—“Shooting for Shorth”

Scientific posters (NM)

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

Last day to submit rewrites for Colloquium Report #3

HW #10 Resume and Statement of Purpose

November 29—No Class, Thanksgiving Break

Monday, December 2

Mail your draft journal club presentation to phys496@physics.illinois.edu by **NOON!**

December 6—last day of class

WW #12—“Putting it All Together—Ms. P-style Editing” (optional; may submit for 20 pts extra credit)

The Last Word on “Due To” (cme)

HW #11 Journal Club Talk (presented during class)

Colloquium Report #4 due (this report is not eligible for rewrites)