

Ask early! Ask often!

Physics 496—Introduction to Physics Research—Spring 2019

Semester at a Glance

Meets 2:00–4:50 p.m. Fridays, 158 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.*

January 18—first day of class

Introduction to Writing Workshop—rationale and goals

WW #1—“Finding the Right Word”

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

Evaluating a science talk or colloquium (TLH)

Effective titles (cme)

No homework due today

January 25

WW #2—Literature search group activity

How to read a physics paper (TLH)

Standards and values for physicists (group activity)

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

HW #1—“Evaluating Titles”

February 1

WW #3—“Using the Right Word”

How to get started if you hate to write, Part II—Building coherent paragraphs (cme)

Technical Writing 101 (Review the handout prior to class)

Making Estimates in Research (group activity)

HW #2—Understanding a Paper

February 8

NO WW today—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).

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

Colloquium Report #1 due

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

February 15

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

Avoiding plagiarism (TLS)

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

Reference rules and styles in scientific writing (cme)

Guest speaker—Professor Barry Bradlyn, Condensed Matter Theory

HW #3—Abstract and Title

February 22

WW #5: “Ambiguous Pronouns”

How to build a logical scientific argument (TLH)

Revising and editing your work (cme)

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

HW #4—Proper Referencing

Last day to submit rewrites for Colloquium Report #1

March 1

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

Creating good figures (TLH)

Tips for figure captions (cme)

Peer reviewing (TLH)

HW #5—Explaining Physics Concepts

Deadline for Registering for April Physics GRE is TODAY!

March 8

WW #7: Evaluating figures team activity and team presentations

Effective science talks (cme)

Using PPT to outline a short science talk (cme)

First meeting of journal-club teams

HW #6—Peer Reviews

Colloquium Report #2 due

March 15

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

Template for a journal-club presentation (cme)

Voice and tense—Making verbs work (cme)

HW #7—Evaluating Figures and Captions

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

March 22—No Class, Spring Break

March 29

WW #9—“Making Verbs Work”

Advice for graduate school (TLH)

Collaborative writing in physics (cme)

HW #8 Making Your Own Figures and Captions

Colloquium Report #3 due

Last day to submit rewrites for Colloquium Report #2

April 5—No homework this week; Physics GRE is tomorrow

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

A framework for ethical decisions (cme)

Hard problems—ethical case studies team activity

Class activity: Rules for mass, count, and collective nouns (review handout prior to class)

Guest speaker—TBD

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

April 12

WW #11—“Shooting for Shorth”

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

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

Last day to submit rewrites for Colloquium Report #3

April 19

WW #12—“Putting it All Together—Ms. P-style Editing”

Scientific posters (TLH)

Intellectual property and copyright (cme)

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

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

HW #10 Resume and Statement of Purpose

Monday, April 22

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

April 26—last day of class

WW #12—“Putting it All Together—Ms. P-style Editing”

HW #11 Journal Club Talk (presented during class)