

Ask early! Ask often!

Physics 496—Introduction to Physics Research—Fall 2018

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 sometimes require the use of **i>clickers, as noted**.

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

August 31—first day of class

Introduction to Writing Workshop—rationale and goals

WW #1—“Finding the Right Word”

Course introduction and web tour (JFS) + **clicker questions (bring your i>clicker!)**

Evaluating a science talk or colloquium (JFS)

Technical communications for physicists (cme)

Effective titles (cme)

No homework due today

September 7

WW #2—Literature search group activity

Technical Writing 101 (bring your i>clicker!)

How to read a physics paper (JFS)

Standards and values for physicists (group activity)

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

HW #1—“Evaluating Titles”

September 14

WW #3—“Using the Right Word”

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

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

No homework due today—GRE Physics test tomorrow!

September 21

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

Rules for capitalization and acronyms (bring your clicker!)

Using persuasion in science writing (cme)

Colloquium Report #1

HW #2—Understanding a Paper

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

September 28

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

Avoiding plagiarism (JFS and cme)

Clicker activity: Plagiarism case studies

Reference rules and styles in scientific writing (JFS)

Guest speaker—Professor [Jeff Filippini](#), *Observational Cosmology*

HW #3—Abstract and Title

October 5

WW #5: “Ambiguous Pronouns”

How to build a logical scientific argument (JFS)

Revising and editing your work (cme)

Clicker activity: Rules for expressing numbers

HW #4—Proper Referencing

Last day to submit rewrites for Colloquium Report #1

October 12

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

Creating good figures (JFS)

Tips for figure captions (cme)

Peer reviewing (JFS)

HW #5—Writing for a General Audience

October 19

WW #7: *Evaluating figures* team activity and team presentations

Effective science talks (JFS)

Using PPT to outline a short science talk (cme)

First meeting of journal-club teams

HW #6—Peer Reviews

Colloquium Report #2

October 26 (GRE Physics is tomorrow)

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

PPT Tips for science talks (cme)

Template for a journal-club presentation (cme)

Voice and tense—Making verbs work (cme)

HW #7—Evaluating Figures and Captions

November 2

WW #9—“Making Verbs Work”

HW #8—Short Science Talk (presented during class; slides emailed to instructors)

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

Last day to submit rewrites for Colloquium Report #2

November 9

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

Applications—CVs and statements of purpose (cme)

Clicker activity: Rules for mass, count, and collective nouns

Guest speaker—Professor [Virginia Lorenz](#), AMO Physics

HW #9 Telling Your Story in Figures and Captions

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

November 16

WW #11—“Shooting for Shorth”

A framework for ethical decisions (cme)

Clicker activity: Ethical or not? You decide (use Vijay example from NAS book)

Hard problems—ethical case studies team activity

Team presentations of their cases and class discussion

HW #10 Resume and Statement of Purpose

Colloquium Report #3

November 23—No Class, Fall Break

Monday, November 26

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

November 30

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

Scientific posters (JFS)

Clicker activity: Eliminating fluff in scientific writing

Guest speaker—Professor [Bryan Clark](#), Condensed Matter Theory/Computational Physics

HW #11 Journal Club Talk (presented during class)

Last day to submit rewrites for Colloquium Report #3

December 7—last day of class

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

Intellectual property and copyright (cme)

No homework this week

Colloquium Report #4 (no rewrites accepted on this colloquium report)