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)
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)