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/s/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.

rev. 1/30/2021
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)