

Physics 496: Communicating in Physics—Writing Papers and Giving Talks Fall 2023

Semester at a Glance Meets 2:00–4:50 p.m. Fridays, 158 Loomis Laboratory of Physics Class Attendance is Mandatory unless Excused; <u>Zoom link</u>

Writing Workshop is held weekly, unless otherwise noted
In-Class Activities require your presence and *active* participation
Homework Assignments are uploaded to the course portal on <u>my.physics</u> by the posted deadline^{*}

Schedule is subject to change; changes will be posted to <u>course website</u> Questions about the schedule should be directed to <u>Celia Elliott</u>

August 25—first day of class

Course introduction (TLH)—Class questions and discussion—read the syllabus and course schedule, poke around the website, and come prepared with questions
Technical communications for physicists (cme)
Communicating in science—"The Up Goer Five" (group activity)
Effective titles (TLH)
No homework due today

September 1

Literature search group activity (JLR) How to read a physics paper (TLH) Standards and values for physicists (group activity) Ethics overview (cme) HW #1—"Evaluating Titles"

September 8

Introduction to Writing Workshop—rationale and goals (JLR) WW #1—"Finding the Right Word" (JLR) How to evaluate a scientific talk or colloquium (TLH) How to write an abstract (cme) Writing an abstract—collaborative activity + group presentations HW #2—"Understanding a Paper"

September 15

WW #2—"Using the Right Word" (JLR) How to get started if you hate to write, Part I (Outlines) (cme) Guest speaker—Professor Lance Cooper, "How to Pick a Graduate School" 3:00 p.m. HW #3—"Title and Abstract"

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

September 22

Guest speaker—"Stumbling Blocks to Intercultural Communication," Kimberly Yau, ISSS WW #3: "Four-Letter Words in Science Writing" (JLR) The scientific publication process and peer review (TLH) HW #4—"Explaining Physics" Draft Colloquium Report #1 Due

September 29

Reference rules and styles in scientific writing (cme) What to reference, why, and how—group activity (JLR) How to get started if you hate to write, Part II (Paragraphs) (cme) Technical Writing 101 (Review the handout prior to class!) HW #5—"Explaining Physics Concepts" Final Version

October 6

WW #4: "Ambiguous Pronouns" (JLR) How to write instructions (JLR) Writing Instructions—group activity (JLR) Giving good science talks (TLH) HW #6—Peer Reviews

October 13

WW #5: "Them Thar Indirect Openings" (JLR) Revising and editing your work (cme) First meeting of journal-club teams—group activity HW #7—Best Practices for Technical Presentations

October 20

WW #6: "The Three-Preposition Rule (3PR)" (JLR) Effective figures (TLH) Effective figure captions (cme) Rules for capitalization and acronyms (Review the handout prior to class) Have team scribe submit your paper selection for your journal-club talk HW #8—Short Science Talk Draft Slides Last Day to Submit Re-writes for Colloquium Report #1

October 27

WW #7—"Making Verbs Work" (JLR) Making verbs work (cme) Guest speaker—Professor Charles Gammie, Theoretical Astrophysics Class activity: Rules for expressing numbers (Review the handout prior to class) HW #9_Evaluating Figures and Captions Colloquium Report #2 Due Arrange for your JC team to meet with Professor Hughes before November 10!

November 3

How to present a journal-club talk (cme) A framework for ethical decisions (cme) Hard problems—ethical case studies team activity <u>HW #10</u>—Short Science Talk (presented during class; parallel sessions in Room 158 and 151)

November 10

WW #8—"Parallel Construction" Writing a statement of purpose for grad school admissions (cme) Surviving Graduate School (TLH) HW #11—Making Your Own Figures and Captions

November 17 WW #9: "Shooting for 'Shorth'" (JLR) Scientific posters (JLR) Intellectual property and copyright (cme) Class activity: Eliminating fluff in scientific writing (Review the handout prior to class) Guest speaker—Professor Wolfgang Pfaff, Experimental Quantum Information/Condensed Matter Physics HW #12 Resume and Statement of Purpose or Cover Letter

<u>November 24</u> NO CLASS—FALL BREAK

MONDAY, November 27—Email your nearly final journal club slides to phys496@physics.illinois.edu by NOON

December 1—last day of class

WW Bonus (optional—complete on your own)—"Editing Practice" The Last Word on "Due To" (Ms Particular) HW #13 Journal Club Talk (presented during class)