

Physics 496—Introduction to Physics Research—Spring 2015

Semester at a Glance

Homework assignments are to be emailed to both instructors by the posted deadline

Date Fridays	Writing Workshop (257 LLP) (Usually 2:00–2:45 p.m., unless noted otherwise)	In Class Activities (158 LLP) (Usually 2:50–4:50 p.m. unless noted otherwise)	Homework Due Today
Jan 23	Intro to Writing Workshop—goals and rationale Complete WW #1—“Finding the Right Word”	Course introduction and expectations (CFG) Website tour (CME) Technical communications in science (CME) Evaluating a science talk (CFG & CME)	None Register for the April GRE Physics test by Mar 13
Jan 30	14th Undergraduate Research Symposium 2:00–5:00 p.m., 141 LLP; attend the talks in lieu of class—no Writing Workshop today; no homework due today		
Feb 6	WW #2—Literature search group exercise	Results of lit search—team presentations Effective titles & in-class exercise (CME) “Physics Frontiers (PF)—AMO,” Prof. Bryce Gadway “PF—HEP,” Prof. Varena Martinez Outschoorn	#1—Evaluating Scientific Presentations
Feb 13	WW #3—“Using the Right Word”	How to read a paper (CFG) Writing an abstract (CME) Peer review (CFG & CME) “PF—Cosmology,” Prof. Jeffrey Filippini “PF—Medium Energy Physics,” Prof. Anne Sickles	#2—Evaluating Titles
Feb 20	WW #4—“Them Thar”	Outlining for structure in tech writing (CME) Properly citing others’ work (CFG) “PF—Physics of Everything,” Prof. Karin Dahmen	#3—Writing an Abstract Decide whom you will interview for Assignment #5
Feb 27	WW #5—“Paragraphs”	Building good paragraphs (CME) Creating good figures (CFG) Effective figure captions (CME) “PF—CondMatt Experiment,” Prof. Gregory MacDougall “PF—Phys Education Research,” Prof. Timothy Stelzer	#4—Referencing Select JC Teams (#8, Part 1)— <u>due Thursday</u>

Mar 6	WW #6—Figure critique group exercise	Figure critiques—team presentations Giving a talk (CFG) PowerPoint® tips for science talks (CME)	#5—Writing about Science for Nonspecialists
Mar 13	WW #7—“The Naked ‘This’”	Rules for capitalization and abbreviations (CME) Tips for your journal club presentation (CME) Journal-club instructions and team meetings “PF—Bio Experiment,” Prof. Thomas Kuhlman	#6—Evaluating Figures and Captions Select JC paper (#8, Part 2)— <u>due Thursday</u>
Mar 20	No WW—go directly to Room 158 at 2:00 p.m.	Professional ethics for physicists (CFG) A framework for ethical decisions (CME) Standards and values (group activity)	#7—Creating Effective Figures and Figure Captions
Mar 27	SPRING BREAK—NO CLASS		
Apr 3	No WW—go directly to Room 158 at 2:00 p.m.	Estimations in research (CFG) Fermi problems (in-class activity) Giving a journal club talk (CFG)	#8—Outline of Journal Club Presentation (team) <u>and</u> team meeting scheduled with CFG
Apr 10	WW #8 “With” and “Only”	Expressing numbers in science writing (CME) How to write instructions (CFG) Using persuasion in science (CME)	#9—Fermi Problem
Apr 17	WW #9 “Writing Instructions”	“Instructions” presentations Voice and tense—making verbs work (CME) How to write a referee report (CFG)	No homework assignment—Physics GRE tomorrow!
Apr 24	No WW—go directly to Room 158 at 2:00 p.m.	Journal Club Presentations	#10—Journal Club Presentations
May 1	WW #10 “Abstractitis”	Copyrights and intellectual property (CME) The last word on “due to,” Ms. Particular (guest appearance)	#11—Referee Report

In addition to the homework assignments listed in the table, students will be required to submit four “colloquium reviews” during the semester. Written instructions for each homework assignment are provided at <http://courses.physics.uiuc.edu/courses/phys496/Spring15/Homework.html>.