

Physics 496—Introduction to Physics Research—Spring 2013

Syllabus and Homework Assignments

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Homework assignments are to be deposited in the PHYS 496 homework box by the posted deadline, unless otherwise indicated.

Date Fridays	Writing Workshop (257 LLP) (Usually 2:00–2:50 p.m., unless noted otherwise)	In Class Activities (322 LLP) (Usually 3:00–4:50 p.m. unless noted otherwise)	Homework Due Today
Jan 18	Intro to Writing Workshop—goals and rationale Complete WW #1—“Getting <i>Something</i> on Paper”	Course introduction and expectations (tml) Technical communications in science (cme) Evaluating a science talk (tml/cme)	None
Jan 25	12th Undergraduate Research Symposium 1:00–5:00 p.m., 141 LLP; attend the talks in lieu of class—no Writing Workshop today; no homework due today		
Feb 1	WW #2—“Using the Right Word”	Tools for the scientific skeptic (tml) Outlining for structure in tech writing (cme) Writing an abstract (tml) Effective titles & exercise (cme)	#1—Evaluating Scientific Presentations
Feb 8	WW #3—“Them Thar”	Using online resources for research (tml) Documenting research (tml) Building good paragraphs (cme) Using persuasion in science (cme)	#2—Abstract
Feb 15	Literature search group exercise in Room 257	Creating good figures (tml) Effective figure captions (cme) Using analogies to explain science (tml)	#3—Paragraphs
Feb 22	WW #4—“Getting <i>Only</i> in the Right Place”	Giving a talk (tml) Effective slide titles (cme) Using LaTeX to prepare scientific manuscripts (tml)	
Mar 1	LaTeX group exercise in Room 257	Professional ethics for physicists (tml) A framework for ethical decisions (cme) Standards and values (group activity)	#4—Analogies

Mar 8	WW #5—"The Naked 'This'"	How to read a paper (tml) Writing for the Web (cme) Expressing numbers in science writing (cme)	#5—Figures and Figure Captions
Mar 15	WW #6—"More Wrong Words"	Presenting a journal club talk (tml) Writing a referee report (tml) Capitalization and acronyms (cme)	#6—Web Highlight
Mar 22	SPRING BREAK—NO CLASS		
Mar 29	WW #7—"Caps and Acronyms"	Writing a grant proposal (cme) Preparing a CV (tml) Preparing a proposal budget (cme)	#8—Referee Report
Apr 5	No WW—go directly to Room 322 at 2:00 p.m.	Journal Club presentations (P496 students)	#7—Journal Club Presentation
Apr 12	WW #8—"With"	Reviewing a proposal (tml) Copyrights and intellectual property (cme) Voice and tense—making verbs work (cme)	
Apr 19	No WW—go directly to Room 322 at 2:00 p.m.	Estimations in research (tml) Fermi problems (group activity) Avoiding fluff in scientific writing (cme) The last word on "due to," Ms. Particular (guest appearance)	#9—Proposal
Apr 26	No WW—go directly to Room 322 at 2:00 p.m.	Proposal Review Panel (group activity)	#10—Proposal Review

May 3—Last day to turn in revised homework assignments for additional points

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/Spring13/Homework.html>.