PHYS 499, General Course Information, Fall 2015

Classes

The class meets on Fridays, 2:00–4:50 PM.

On most class days, we meet at 2:00 PM in Room 257 Loomis (student computer classroom) for "Writing Workshop" (WW), a series of online activities designed to improve your writing skills. Around 2:45 PM, the class moves to Room 222 Loomis for lectures and other in-class activities. Class attendance is mandatory, and unexcused absences will adversely affect your grade.

Course Website

The course syllabus, grading rubric, written instructions for assignments, announcements, lecture notes, and links to useful external resources are posted on the course website, http://courses.physics.illinois.edu/PHYS499/. Check it frequently for updates. Lecture notes are posted following each lecture.

Instructors

	Office Hours	Where	email
Brian DeMarco	M, W, 10:00 AM–Noon or by appt.	329 Loomis	bdemarco@illinois.edu
Celia M. Elliott	W, Th, 10:00 AM–Noon or by appt.	215 Loomis	cmelliot@illinois.edu

Course Rationale

The purpose of this course is to polish your speaking and writing skills to better prepare you for a successful career in physics or related disciplines.

Course Components

The course consists of in-class writing practice, lectures and guest presentations, student presentations and group activities, and written homework assignments. No formal exams are given.

For the in-class writing practice, which we call "Writing Workshop" (WW), you will use editing software to gain experience in reading and revising technical material and correcting common rhetorical errors. You will also have the opportunity to ask questions of the instructors during WW on your other class assignments.

The written homework assignments consist of a statement of purpose for graduate school applications, a brief description of your research project suitable for a general audience, a printed scientific poster, and a formal thesis or technical report on your research project.

Formal presentations include a poster presentation and a final presentation on your research project, analogous to a contributed talk for an American Physical Society meeting.

Refer to the class syllabus and written assignments for additional details and deadlines.

Textbook

No textbook is required for this course. Lecture notes are posted on the course website following each class. Some scientific papers published in the peer-reviewed literature are assigned for reading and analysis; all are available free of charge online through the University's library subscription.

Recommended Reading

The following books are well worth adding to your personal library. If you'd like to take a look at them, they are available at the Grainger Engineering Library.

William Cleveland, *Visualizing Data* (Hobart Press, 1993).

Robert A. Day and Barbara Gastel, *How to Write & Publish a Scientific Paper*, 7th ed. (Greenwood, 2011).

Julie Steele and Noah Iliinsky, *Beautiful Visualization: Looking at Data through the Eyes of Experts* (O'Reilly Media, 2010).

Grading

Timely submission of written assignments is required, and each contributes to your final grade. A grading rubric is posted on the course website.

To encourage you to complete your assignments on time and to revise your work, you may earn additional points for rewrites of some assignments, *provided a nearly complete initial draft is submitted by* ***the deadline.*** Late submissions will be ineligible for "rewrite" points. You may earn additional points for each revision, up to 100 percent of the original points assigned to that exercise. Assignments that are ineligible for rewrite points are clearly marked on both the assignment sheet and in the grading rubric posted on the course website.

Assignments

Assignments include both written work and oral presentations. Detailed instructions for each assignment, along with its due date, are posted on the website. Assignments are due by the stipulated deadline. **Assignments turned in after the deadline will be downgraded proportionately, depending on lateness, and will not be eligible for rewrite points.**

Extensions will not be granted except in extraordinary extenuating circumstances (kidnapping; severe, sustained chest pains; uncontrolled bleeding from a major artery...). Get *something* on paper and get it turned in by the deadline; you will be able to revise and recover the points for most of the writing assignments. Some assignments are not eligible for rewrites—real life occasionally has real deadlines, even in academia. Consult the written instructions for each assignment to determine if it is rewrite-eligible.

All assignments are to be ***emailed to the instructors*** as electronic attachments (MS Word, MS PowerPoint, or PDF documents ***only***) by the deadline noted on the assignment page. A summary of the homework assignments, including points assigned, is posted on the course website.

Please use the following file-naming system when submitting your electronic homework assignments: `PHYS499_YourSurname_assignment-name`.

Writing Workshop (WW)

A variety of exercises has been devised to help you identify writing flaws and practice correcting them. These exercises are to be completed in real time during WW and emailed to Celia at the end of the workshop. The WW workshop exercises are graded on a binary system: Showed up, made a genuine effort, submitted on time = full points;
didn't show up; goofed off; failed to submit = 0 points. Missed WWs may not be made up.

Physics Colloquium

Physics 499 students are required to ***attend four departmental colloquia*** or equivalent seminars during the semester and ***prepare a short written analysis*** of each, using the "Colloquium Report" template posted on the course website. Colloquium is held at 4:00 PM on Wednesdays in Room 141 Loomis. If you have a class conflict and cannot attend Colloquium, email Professor DeMarco to make alternative arrangements.

As you listen to the colloquium or seminar, think critically and analytically not only about the physics, but also about the speaker's strengths and weaknesses as a communicator. Was the talk logically organized? Were the speaker's main points emphasized and clearly communicated? Did the slides enhance the presentation or detract from it? Were any slides unclear, too detailed, or superfluous? Did the slides have an optimal mix of text and images? How did the speaker handle questions? What do you want to emulate or eschew?

Email

The instructors will communicate with you about the course via email to your ***University of Illinois*** email account—check it regularly. Please send assignments or other messages to the instructors with a "From" line showing your name and originating from or on behalf of your UI address. Your message may be deleted as spam if it appears in our inboxes as "cutename@hotmail.com." Please put PHYS499 in the subject line of each message (we do not use the "threading" feature of some email programs, so don't omit the subject line), and be sure to include your full name in the email message.

Class Administration

Any concerns, questions, or comments about the administration of the course should be directed to Professor DeMarco.