

PHYS 598 PEN, General Course Information, Spring 2018

Classes

The class will meet on Fridays, 11:00 a.m. – 1:00 p.m. Class will meet at 11:00 a.m. in Rm. 158 Loomis for lectures and other in-class activities. On roughly half the class days (see posted schedule: <https://courses.physics.illinois.edu/phys598pen/syllabus.html>), there will be in-class time for you to go to the computer lab (Rm. 257 Loomis) for Writing Workshop (WW), where you can work on the computer-based WW exercises aimed at improving your writing skills. Writing Workshop exercises not completed in class can be completed as homework assignments after class.

Course Website

The course syllabus, written instructions for assignments and an assignment summary, announcements, lecture notes, and links to useful external resources will be posted on the course website: <http://courses.physics.illinois.edu/phys598pen/>. Please check the course website frequently for updates and information.

Instructor Information

<u>Instructors</u>	<u>Office Hours</u>	<u>Office</u>	<u>E-mail</u>
Lance Cooper	Fridays, 9 – 11 a.m. & by appointment	227B Loomis	slcooper@illinois.edu
Celia Elliott	By appointment	215 Loomis	cmelliot@illinois.edu

Course Objectives

The purpose of this course is to help you improve your scientific writing and presentation skills. The course will particularly focus on helping you learn how to prepare scientific papers and presentations such as journal publications, prelim papers and presentations, theses and thesis presentations, scientific proposals, etc. The course aims to provide professional training for those in science, including how to write and respond to referee reports, how to write and evaluate scientific proposals, etc.

Course Components

The course will consist of in-class writing practice, lectures, student presentations and group exercises, and written homework assignments, including a final research paper that will be due during finals week in lieu of a final examination. There will be no examinations in this course.

During the in-class writing workshop (WW), you will gain experience in reading and revising technical material electronically and in correcting common rhetorical errors. You will also have an opportunity to ask questions and get detailed feedback from the instructor during WW on your other class assignments.

The written homework assignments will consist of specific writing tasks, including preparation of a scientific poster and you. We will discuss how to create effective figures to illustrate your work. Homework assignments are to be emailed by the deadline given to Lance Cooper (slcooper@illinois.edu) as a Word, PPT, or PDF attachment. Formal presentations will include a

journal club presentation of another group's research, a research presentation of your work (or of a research topic you select) and a scientific poster presentation of your work. Please refer to the class syllabus (<https://courses.physics.illinois.edu/phys598pen/syllabus.html>) and written assignments for additional details and deadlines.

Recommended Reading

No textbook is required for this course. Lecture notes are posted on the course website for your convenience. Some scientific papers published in the peer-reviewed literature should be consulted for your assignments; all are available free of charge online through the University's library subscription. However, the following books are worth adding to your personal 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).

Vernon Booth, *Communicating in Science: Writing a Scientific Paper and Speaking at Scientific Meetings*, 2nd ed. (Cambridge University Press, 1993).

Grading

Timely submission of written assignments is required. You will be given feedback on and grades for the communications aspects of your assignments, and grades on all assignments will contribute to your final grade.

Each WW exercise will be reviewed and full credit will be given for these assignments if a serious effort is made to complete them. Solutions to the WW exercises will be posted.

Each homework assignment will be scored and points granted. Drafts will be required for most assignments, but will be ungraded. The total points for each assignment are provided in the written instructions for that assignment.

Homework Assignments

Assignments include both written work and oral presentations. Detailed instructions for each assignment, along with the assignment due date, are posted on the Assignments webpage (<https://courses.physics.illinois.edu/phys598PEN/sp2018/Assignments.html>). Assignments are due by the designated due date. Deadline extensions may be granted in special circumstances with prior approval of the instructor. All assignments (MS Word, MS PowerPoint, or PDF documents **only**) are to be **emailed** to Lance Cooper by the deadline noted.

Writing Workshop (WW) Exercises

A variety of exercises has been devised by Celia Elliott to help you identify writing flaws and practice correcting them. These exercises can either be completed in class as part of Writing Workshop or after class as short homework assignments. The Writing Workshop assignments should take no more than ~30 minutes each. Completed assignments should be emailed to Lance Cooper (slcooper@illinois.edu). Full credit will be given for these exercises if they are completed, and solutions to the assignments will be posted on the course website.