

PHYS 598 PEN, General Course Information, Spring 2021

Course Lectures

The class will meet on Fridays, 10:00 a.m. – 12:00 noon. Because of the ongoing COVID-19 pandemic, during Spring 2021, **Phys 598 PEN classes will be primarily offered virtually**. A Zoom meeting link to the lectures will be e-mailed to the class each week and can also be accessed on the course syllabus webpage:

<https://courses.physics.illinois.edu/phys598pen/syllabus.html>. Because of the nature of this writing course—in which most of the feedback on assignments will occur outside of class—the on-line lectures are not expected to impact the efficacy of the course.

While most classes will be conducted fully online, we have reserved Rm. 151 for those students who want to conduct their oral presentations in-person rather than via Zoom. For any in-person classes, those who would like to attend the oral presentation on-line must: (i) **have had a recent COVID-19 test**, e.g., as indicated with a “Granted” building access on your Safer Illinois app; (ii) **must occupy only the seats designated in Rm. 151 Loomis** so that everyone is appropriately socially distanced; and (iii) **wear a mask while in Loomis and in the classroom**. Students not wearing a mask will be asked to leave the classroom. Note that the socially distanced seating capacity for Rm. 151 Loomis is 17 students, so there is sufficient capacity in that room for all students to attend in person. I will notify the entire class during the week before if a particular class will be conducted in-person. Those not wishing to attend in-person will still be able to attend the class remotely via Zoom.

Writer’s Workshop

On roughly half the class days (see posted schedule:

<https://courses.physics.illinois.edu/phys598pen/syllabus.html>), there will be in-class time for Writing Workshop (WW), where you can work virtually on the computer-based WW exercises aimed at improving your writing skills. Lance Cooper will be available during Writing Workshop to answer questions about instructor feedback on writing assignments. Writing Workshop exercises not completed in class can be completed as homework assignments.

Phys 598 PEN MediaSpace Channel

Videos of all lectures will be posted on the Physics 598 PEN Spring 2021 Channel on Media Space as soon as possible after the main lecture. The link to this channel is here:

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/sp2021/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

Many of the WW exercises—created by Celia Elliott—are included to help you identify writing flaws and practice correcting them. Lance Cooper has included several other WW exercises to practice writing professional writing genres (editor cover letters, research statement, etc.) 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.

Academic Integrity

All activities in this course are subject to the Academic Integrity rules as described in [Article 1, Part 4, Academic Integrity, of the Student Code](#).

Infractions include, but are not limited to:

- cheating, plagiarism, fabrication
- facilitating infractions of academic integrity.
- academic interference
- computer-related infractions
- unauthorized use of university resources
- sale of class materials or notes

Violations of any of these rules will be prosecuted and reported to the student's home college in compliance with the Student Code: [Article 1, Part 4, Academic Integrity, of the Student Code](#).

All aspects of the course are covered by these rules.

Disability Access

(<https://www.disability.illinois.edu/academic-support/instructor-information/examples-disability-statements-syllabus>)

The Department of Physics is committed to being an open and welcoming environment for all of our students. We are committed to helping all of our students succeed in our courses.

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, e-mail disability@illinois.edu or go to the [DRES website](#). If you are concerned you have a disability-related condition that is impacting your academic progress, there are academic screening appointments available on campus that can help diagnosis a previously undiagnosed disability by visiting the DRES website and selecting “Sign-Up for an Academic Screening” at the bottom of the page.

If you are interested in obtaining information to improve writing, study skills, time management or organization, the following campus resources are available to all students:

Writer’s Workshop

Undergrad Library
217-333-8796

<http://www.cws.illinois.edu/workshop>

<https://www.disability.illinois.edu/strategies>

<http://www.counselingcenter.illinois.edu/self-help-brochures/>

Also, most college offices and academic deans provide academic skills support and assistance for academically related and personal problems. Links to the appropriate college contact can be found by going to this website and selecting your college or school: <http://illinois.edu/colleges/colleges.html>

If you are experiencing symptoms of anxiety or depression or are feeling overwhelmed, stressed, or in crisis, you can seek help through the following campus resources:

Counseling Center

206 Fred H. Turner Student Services Building
7:50 a.m.-5:00 p.m., Monday through Friday
Phone: 333-3704

McKinley Mental Health

313 McKinley Health Center
8:00 a.m.-5:00 p.m., Monday through Friday
Phone: 333-2705

McKinley Health Education offers individual consultations for students interested in learning relaxation and other stress/time management skills, call 333-2714.

Physics 598 PEN - Course Syllabus - Spring 2021

(Syllabus is subject to change!)

Physics 598 PEN Spring 2021 Channel on Media Space

Week	Date	Lectures	Homework Assignments	Assignments Due	Writing Workshop Assignment	Reading	Zoom/Video
1	Jan 29	Course Introduction: Persuasive Science Communication	Assignment 1: 1-page Research Topic paper		WW0		Zoom Link Video Recording
2	Feb 5	Scientific Writing Tips: Journal Club Presentations: Journal Club Presentation Template	Assignment 2: Journal Club Presentation/Referee Report		WW1 (Solutions) WW1 Debrief	Paragraphs Writing Cohesive Paragraphs	Zoom Link Video Recording
3	Feb 12	The Publication Process and Writing Referee Reports		Assignment 1 Due	WW2 (Solutions) WW2 Debrief	"Why Did You Accept My Paper" paper	Zoom Link Video Recording
4	Feb 19	Writing Abstracts and Introductions	Assignment 3: Research Topic Abstract and Introduction w/ References	JC Paper Selection Due	WW3 (Solutions) WW3 Debrief	Verb Usage	Zoom Link Video Recording

5	Feb 26	Giving Better Talks (cme) How to Lose Your Listeners (cme)			WW4 (Solutions)	Ambiguous Pronouns	Zoom Link Video Recording
6	Mar 5	Methods and Results Sections of Scientific Papers 20-Minute Journal Club Presentations:	Assignment 4: Research Methods and Results w/ Figures	Assignment 3 Draft Due Referee Report Due	WW5	Writing an Editor Cover Letter	Zoom Link Video Recording
7	March 12	Displaying Scientific Data 20-Minute Journal Club Presentations:	Assignment 5: 20-Minute Research Presentation	Referee Report Due	WW6 (solutions)		Zoom Link Video Recording
8	March 19	20-Minute Journal Club Presentations:		Assignment 3 Final Due	WW7 (handout)	Figures and Captions Graphing Resources	Zoom Link Video Recording
9	March 26	20-Minute Journal Club Presentations:			WW8	Poster "Stump" Speeches Effective Scientific Posters Scientific Poster Example/Template	Zoom Link Video Recording

10	April 2	Writing Scientific Proposals: Effective Project Summaries: Physics 598 Proposal Assignment	Assignment 6: Scientific Proposal	Assignment 4 Draft Due	WW9	Physics 598 PEN Proposal Cover Sheet "What Words Are Worth" paper	Zoom Link Video Recording
11	April 9	Proposal Review Process: CVs for Proposals: Preparing a Proposal Budget 20-Minute Research Presentations:			WW10	NSF-style CV template NIH-style CV template	Zoom Link Video Recording
12	April 16	20-Minute Research Presentations:		Proposal Project Summaries Due	WW11	Only	Zoom Link Video Recording
13	April 23	20-Minute Research Presentations:		Proposal Due Proposal Review Form Proposal Review Assignments	WW12	With Need Like	Zoom Link Video Recording
14	April 30	Phys 598PEN Proposal Panel Review		Assignment 4 Final Due			Zoom Link Video Recording