

## PHYS 598 PEN, General Course Information, Spring 2022

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### Course Lectures

The class will meet on *Fridays, 10:00 a.m.–12:00 noon*. Classes will be held in person in **Rm. 276 Loomis**, unless indicated otherwise. While attending classes in person is preferred, because of the ongoing COVID-19 pandemic, during optional virtual attendance is allowed and 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>.

Students attending in person will need to abide by the current **UIUC building access guidelines**.

### Writer's Workshop

During most class periods (see posted schedule: <https://courses.physics.illinois.edu/phys598pen/syllabus.html>), there will be an in-class Writing Workshop (WW) during the second half of class, during which we will discuss topics related to improving your writing skills and you will have a chance to work on WW exercises and get feedback on writing assignments. 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 2022 Channel** on Media Space as soon as possible after the main lecture. The link to this channel is here: [Physics 598 PEN Spring 2022 - Illinois Media Space](#)

### 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, 9–10 a.m. or by appointment	227B Loomis	<a href="mailto:slcooper@illinois.edu">slcooper@illinois.edu</a>
Celia Elliott	By appointment	215 Loomis	<a href="mailto:cmelliot@illinois.edu">cmelliot@illinois.edu</a>

### 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/sp2022/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](mailto: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 2022

(Syllabus is subject to change!)

## Physics 598 PEN Spring 2022 Channel on Media Space

Week	Date	Lectures	Homework Assignments	Assignments Due	Writing Workshop Assignment	Reading	Zoom/Video
1	Jan 21	<a href="#">Course Introduction: Persuasive Science Communication</a>	<b>Assignment 1:</b> <a href="#">1-page Research Topic paper</a>		<a href="#">WW0</a>		<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
2	Jan 28	<a href="#">Scientific Writing Tips: Journal Club Presentations: Journal Club Presentation Template</a>	<b>Assignment 2:</b> <a href="#">Journal Club Presentation/Referee Report</a>		<a href="#">WW1 (Solutions)</a>  <a href="#">WW1 Debrief</a>	<a href="#">Paragraphs</a>  <a href="#">Writing Cohesive Paragraphs</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
3	Feb 4	<a href="#">The Publication Process and Writing Referee Reports</a>		<b>Assignment 1 Due</b>	<a href="#">WW2 (Solutions)</a>  <a href="#">WW2 Debrief</a>	<a href="#">"Why Did You Accept My Paper" paper</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
4	Feb 11	<a href="#">Writing Abstracts and Introductions</a>	<b>Assignment 3:</b> <a href="#">Research Topic Abstract and Introduction w/ References</a>	<b>JC Paper Selection Due</b>	<a href="#">WW3 (Solutions)</a>  <a href="#">WW3 Debrief</a>	<a href="#">Verb Usage</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>

5	Feb 18	<a href="#">Giving Better Talks</a> (cme) <a href="#">How to Lose Your Listeners</a> (cme)			<a href="#">WW4</a> (Solutions)	<a href="#">Ambiguous Pronouns</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
6	Feb 25	<a href="#">Methods and Results Sections of Scientific Papers</a>  <a href="#">Displaying Scientific Data</a>  20-Minute Journal Club Presentations:	<b>Assignment 4:</b> <a href="#">Research Methods and Results w/ Figures</a>	<b>Assignment 3</b> Draft Due  Referee Report Due	<a href="#">WW5</a>	<a href="#">Writing an Editor Cover Letter</a>  <a href="#">Figures and Captions</a>  <a href="#">Graphing Resources</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
7	March 4	20-Minute Journal Club Presentations:	<b>Assignment 5:</b> <a href="#">20-Minute Research Presentation</a>	Referee Report Due	<a href="#">WW6</a> (handout)		<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
8	March 11	20-Minute Journal Club Presentations:		<b>Assignment 3</b> Final Due	<a href="#">WW7</a> (solutions)		<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
	March 18	<b>Spring Break</b>					

9	March 25	20-Minute Journal Club Presentations:			<a href="#">WW8</a>	<a href="#">Poster "Stump"</a> <a href="#">Speeches</a> <a href="#">Effective</a> <a href="#">Scientific Posters</a> <a href="#">Scientific Poster</a> <a href="#">Example/Template</a>	<a href="#">Zoom Link</a>  <a href="#">Video</a> <a href="#">Recording</a>
10	April 1	<a href="#">Physics 598</a> <a href="#">Proposal</a> <a href="#">Assignment;</a> <a href="#">Writing</a> <a href="#">Scientific</a> <a href="#">Proposals;</a> <a href="#">Effective</a> <a href="#">Project</a> <a href="#">Summaries</a>	<b>Assignment 6:</b> <a href="#">Scientific Proposal</a>	<b>Assignment 4</b> <b>Draft Due</b>	<a href="#">WW9</a>	<a href="#">Physics 598 PEN</a> <a href="#">Proposal Cover</a> <a href="#">Sheet</a>  <a href="#">"What Words Are</a> <a href="#">Worth" paper</a>	<a href="#">Zoom Link</a>  <a href="#">Video</a> <a href="#">Recording</a>
11	April 8	<a href="#">Proposal</a> <a href="#">Review</a> <a href="#">Process; CVs</a> <a href="#">for Proposals;</a> <a href="#">Preparing a</a> <a href="#">Proposal</a> <a href="#">Budget</a>  20-Minute Research Presentations:			<a href="#">WW10</a>	<a href="#">Celia's CV</a> <a href="#">template</a>  <a href="#">NSF-style CV</a> <a href="#">template</a>  <a href="#">NIH-style CV</a> <a href="#">template</a>	<a href="#">Zoom Link</a>  <a href="#">Video</a> <a href="#">Recording</a>
12	April 15	20-Minute Research Presentations:		<b>Proposal</b> <b>Project</b> <b>Summaries</b> <b>Due</b>	<a href="#">WW11</a>	<a href="#">Only</a>	<a href="#">Zoom Link</a>  <a href="#">Video</a> <a href="#">Recording</a>

13	April 22	20-Minute Research Presentations:		<a href="#">Proposal Due Proposal Review Form</a>  <a href="#">Proposal Review Assignments</a>	<a href="#">WW12</a>	<a href="#">With Need Like</a>	<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>
14	April 29	Phys 598PEN Proposal Panel Review		<a href="#">Assignment 4 Final Due</a>			<a href="#">Zoom Link</a>  <a href="#">Video Recording</a>



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