

PHYS 496, General Course Information, Spring 2021

Course Objectives

The purpose of this course is to teach you valuable writing, presentation, teamwork, leadership, and organizational skills that will better prepare you for a successful career in science or technology. You will learn good communications practices and standard conventions for physics talks, abstracts, journal articles, and figures, and you'll learn how to communicate your science to general audiences as well as to specialists. You will be exposed to forefront physics research and the variety of career options that are available for people holding a physics degree.

Ground Rules

Academic Integrity

The instructors for PHYS 496 take academic integrity very seriously, and we expect you to do so as well. Progress in science is not possible unless we can rely on its practitioners to be scrupulously honest and transparent in all their activities. Dishonesty in any form—cheating, plagiarism, representing others' work as your own individual work, submitting work you did for another class as original work, or fabricating excuses for missed work—will not be tolerated.

The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Please pay particular attention to Article 1, Part 4: Academic Integrity. You may read the Code at the following URL: <http://studentcode.illinois.edu/>.

Academic dishonesty will result in a sanction proportionate to the severity of the infraction, with possible sanctions described in [1-404 of the Student Code](#). You are expected to review and abide by the [Academic Integrity Policy](#). As a student, it is your responsibility to refrain from infractions of academic integrity and from conduct that aids others in such infractions. A [short guide](#) to academic integrity is available for you.

Ignorance of these policies is not an excuse for any academic dishonesty and will not be accepted as one. It is your responsibility to read the Student Code to avoid any misunderstanding. Do not hesitate to ask the instructors if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

In this course, you are expected to produce your own original work in all assignments. Written assignments may be submitted through SafeAssign, a software tool that compares your writing against a large database as well as to the work of your current classmates and previously submitted assignments. Assignments with close matches to other work will be identified and investigated.

Recycling work prepared for another class and presenting it as original work for credit in PHYS 496 is a violation of the Student Code.

Anti-Racism, Respect, and Inclusivity

The Department of Physics is committed to the creation of an anti-racist, inclusive community that welcomes diversity along a number of dimensions, including, but not limited to, race, ethnicity and national origins, gender and gender identity, sexuality, disability status, class, age, or religious beliefs. The department recognizes that we are learning together, that Black, Hispanic, and Indigenous voices and contributions have largely been either excluded from or not recognized in physics, and that both overt racism, micro-aggressions, and thoughtless exclusionary behavior threaten the well-being of our students and our physics community.

The effectiveness of this course depends upon each of us to contribute to a safe and encouraging learning environment that allows for the open exchange of ideas. We must also ensure equitable opportunities and respect are given to all of us. You are expected to help establish and maintain an environment where students, staff, and faculty can contribute without fear of personal ridicule, intimidation, or intolerant or offensive language. If you witness or experience racism, discrimination, micro-aggressions, or other offensive behavior, please bring this situation to the attention of Celia, Professor Madhavan, or Jessica if you feel comfortable doing so. You can also report these behaviors to the [Bias Assessment and Response Team \(BART\)](#). Based on your report, BART members will follow up to make sure you have the support you need to be healthy and safe. If the reported behavior also violates university policy, staff in the Office for Student Conflict Resolution may respond as well and will take appropriate action.

Disability-Related Accommodations

To obtain disability-related academic adjustments and/or auxiliary aids, you must contact one of the instructors 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 <https://www.disability.illinois.edu>. If you are concerned you have a disability-related condition that is adversely affecting your academic progress, academic screening appointments are available that can diagnose a previously undiagnosed disability. You may access these services by [visiting the DRES website](#) and selecting “Request an Academic Screening” at the bottom of the page.

Family Educational Rights and Privacy Act (FERPA)

If you have suppressed your directory information pursuant to the [Family Educational Rights and Privacy Act \(FERPA\)](#), you should self-identify to the instructors to ensure protection of the privacy of your attendance in this course.

Religious Observances

Illinois law requires the University to reasonably accommodate its students’ religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. Please check the class schedule immediately for potential conflicts between course deadlines and any of your religious observances. If a conflict exists, you should notify Celia of the conflict during the first two weeks of class (i.e., **by February 12, 2021**), and follow the procedure at <https://odos.illinois.edu/community-of-care/resources/students/religious-observances/> to request appropriate accommodations.

Sexual Misconduct Reporting Obligation

The University of Illinois and the Department of Physics are committed to combating sexual misconduct. Faculty and staff members are **required** to report any instances of sexual misconduct to the University’s Title IX Office. After receiving a report, an individual with the Title IX Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options to the affected student.

Some designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality. A list of such individuals can be found at wecare.illinois.edu/resources/students/#confidential. The [my.physics website](#) also has convenient links to resources for reporting, obtaining assistance, and preventing sexual misconduct.

Classes

The class will meet on Fridays, 2:00–4:50 PM online via Zoom. The link for the class is available on the [course website](#). Attendance is *mandatory*, and unexcused absences will result in a loss of points for the “participation” portion of your final grade. If you are unable to attend class, send an [email](#) to the instructors *prior* to class, explaining the reason for your absence and your plan for making up the work.

An integral part of the class is “[Writing Workshop](#)” (WW), a series of in-class activities designed to improve your writing skills by analyzing and editing examples taken from published physics papers. The examples have been chosen to showcase specific, common scientific-writing flaws. You must use a laptop or tablet equipped with MS Word during each class that has a WW scheduled to complete the exercises. If you do not already have Word installed on your computer, you can get Microsoft Office 365 free-of-charge from the [UI Webstore](#).

Course Website

The [course syllabus](#), [assignment summary](#), [written instructions for assignments](#), [announcements](#), [lecture notes](#), and links to [useful external resources](#) are posted on the [course website](#). Check it frequently.

Instructors

	Office Hours	Contact
Vidya Madhavan	By appointment	email
Celia M. Elliott	By appointment	email
Jessica Raley	By appointment	email

Course Components

The course will consist of in-class writing practice (Writers’ Workshop), lectures, formal and extemporaneous student presentations and group exercises, and written homework assignments and colloquium reports. No formal exams will be given.

For the in-class writing practice ([WW](#)), you will gain experience in reading and revising technical material electronically and in correcting common writing errors. You will also have an opportunity to ask questions and get detailed feedback during WW on your other class assignments. These exercises have been devised to help you identify common technical writing flaws and practice correcting them. Missed exercises **may not be made up** unless prior arrangements are made with [Celia](#).

The [homework assignments](#) consist of specific writing tasks, including written evaluations of presentations and papers, abstracts, outlines, figure captions, and articles for a general audience. You will also learn how to create effective figures and captions to illustrate your written work.

PHYS 496 students are required to *attend at least two departmental colloquia* during the semester and *prepare a short written analysis* of each, using the “[Colloquium Report](#)” template. Each colloquium report is worth 50 points, and the first three are eligible for rewrite points.

Formal presentations will include an individual presentation, a team journal-club presentation, and informal individual and group presentations as part of in-class activities.

Refer to the [grading matrix](#) and written [assignments](#) for additional details and deadlines.

Textbook

No textbook is required for this course. [Lecture notes](#) are posted on the course website after each class. Some scientific papers published in the peer-reviewed literature will be assigned; all are available free of charge online through the University's library subscription.

Recommended Reading

The following books, while not required, are well worth adding to your personal library.

Vernon Booth, *Communicating in Science: Writing a scientific paper and speaking at scientific meetings*, 2nd ed. (Cambridge, Cambridge University Press, 1993).

Herbert Michaelson, *How to Write and Publish Engineering Papers and Reports*, 3rd ed. (Phoenix, Oryx Press, 1990).

Grading

Timely submission of written assignments is required. You will be given feedback on both the physics and the technical writing components of your assignments, and each will contribute to your final grade. A [grading matrix](#) that shows course components and the points assigned to each is posted on the course website.

Each WW exercise will be reviewed and points awarded for completing it. The WW exercises are graded binarily; if you show up and make a good-faith effort to complete the exercise and participate in class, you will receive full points. If you don't, you will receive 0 points for that exercise. Missed WW exercises may not be made up, unless prior arrangements are made for an excused absence.

Each homework assignment will be scored and points allotted. The total points for each assignment are provided in the written instructions for that assignment and on the [grading matrix](#).

To give you an incentive to complete your assignments on time and to revise your work, you will be able to earn additional points for rewrites on some assignments, *provided the initial draft is submitted by the posted due date and time*. Late submissions are ineligible for "rewrite" points. You will be able to earn additional points for each eligible revision, up to 100 percent of the original points assigned to that exercise.

You may use the student gradebook for PHYS 496 available at my.physics.illinois.edu to check on your grades at any time and to confirm that all your submitted assignments have been graded. Incremental rewrite points will be added as they are earned to the total points awarded to each assignment in the gradebook.

Final grades will be determined by the total points you earn, the distribution of grades among the whole class, and your class rank.

Assignments

Assignments include both written work, team activities, and oral presentations. Detailed instructions for each assignment, along with its due date, are [posted on the website](#). Most assignments are due by 9:00 PM on the designated due date, but *check the written homework instructions* for due dates and times. **Assignments turned in after the deadline date and time will be penalized by a deduction of up to 10% of the total points, if submitted within 72 hours of the deadline. Assignments submitted more than 72 hours late will be increasingly penalized. Furthermore, late assignments will not be eligible for rewrite points.**

Deadline extensions will not be granted except for extraordinary circumstances (transient global amnesia; severe, sustained chest pains; uncontrolled bleeding from a major artery...). Get *something* on paper and get it turned in by the deadline.

All assignments are to be uploaded to the PHYS496 [secure homework facility on my.physics](#) by the deadline noted on the assignment page. A [summary](#) of the homework assignments, including due dates, eligibility for rewrites, and points assigned, is posted on the course website. The link for submitting assignments automatically closes 72 hours after the due date and time. If you miss the deadline and wish to submit a late assignment, contact [Celia](#) for instructions.

Graded assignments will be returned to you via the PHYS496 secure homework facility for your download and review.

Don't forget to put your name at the top of the page for submitted assignments.

Revisions of Previously Submitted Assignments: If you are submitting a revised assignment for regrading, please prominently identify it as a revision on the top of the page, e.g., “Homework #6—Rev. 1. Subsequent revisions should be labeled in ascending numerical order. Keep *all* files (originals and revisions) for your records.

Email revisions to [Celia](#). While no hard deadlines have been established for homework revisions, you'll get the most out of doing the rewrite if you do it promptly after receiving graded feedback. Please do not submit all your rewrites during the last week of class. Doing so is largely pointless and will make Celia cranky.

For your written assignments, you may wish to consult the University's Center for Writing Studies [Writers Workshop](#), which provides free, one-on-one help to all UIUC students. The Workshop's consultants can help with any kind of paper, in any class, at any stage of the writing process. While the Writers Workshop is not an editing service, the tutors will help you with anything related to your writing, including grammar, brainstorming, organizing, polishing final drafts, citing sources, and more. The Writers Workshop offers 50-minute sessions by appointment in five locations: the Undergraduate Library, Grainger Library, Ikenberry Commons, Burrell Hall, and the Pennsylvania Avenue Residence Halls. The Workshop also sponsors writing groups, online tutoring, and hands-on presentations about academic writing skills.

Peer Review

One of the [homework assignments](#) will be peer reviewed. The reviews will be done anonymously; please maintain the confidentiality of the review process. Your colleagues will be most helped by reviews that are specific, detailed, and objective. Be critical, but express your criticisms in a positive, nonjudgmental way. Strive for the “golden rule” for reviewers—“Review unto others as you would have them review unto you.”

Physics Colloquium

Colloquium is held at 4:00 pm on Wednesdays via Zoom. The [Spring 2021 colloquium calendar](#) is available online. The ZOOM link will be sent on Wednesday morning to the Physics Faculty, Graduate Student, PDRA, and AP mailing lists. If you are not on one of those lists and are interested in attending, please email Suzanne Hallihan at shalliha@illinois.edu for the Zoom link.

If you have a class conflict and cannot attend the Physics Department colloquia, consult Professor Madhavan or Celia for suggestions on alternative arrangements.

Completed colloquium reports should be uploaded to the secure PHYS496 server on [my.physics](#). Note that colloquium reports and any revisions for additional credit must be [submitted by the posted deadlines](#) to receive full credit.

Class Administration

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

Email

The instructors will communicate with you about the course via email to your *University of Illinois* email account; check it regularly! If you send email to the instructors, please put PHYS 496 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 your message.