

UIC

Physics 108

Introductory Physics II—Laboratory and Discussion

Fall 2016

Instructors' Information

	Name	E-mail	Office Hours	Office Hours Location
Discussion TA				
Laboratory TA				

Coordinators: Brian Good (bgood7@uic.edu) and Ryan Sellers (rseller2@uic.edu)

Course Website:

All course information, including weekly homework, will be posted on blackboard.uic.edu.

Laboratory Website: All Lab Workbooks can be found on Blackboard.

General Information

The purpose of Physics 108 is to help you explore the natural phenomena of electricity and magnetism through hands-on experience in the laboratory. You will be observing and analyzing these concepts as they are put into action in a computer-based format. The discussion sections will always precede the lab sections and are designed to help you use the concepts you have learned in the lab frame-of-mind through group problems and class discussions with the TA.

Please be sure you have also registered for Physics 107. **Physics 107 and Physics 108 must be taken simultaneously.** The prerequisites for this course are high school algebra and trigonometry. If you do not feel confident in your ability to do algebra and trigonometry, you should spend time during the first few weeks of class reviewing these concepts or seeking help, as they are fundamental mathematical tools that are used throughout the whole course.

Discussion

Discussion sections are an opportunity for you to work through problems with your TA and other students that lead you from a textbook frame-of-mind to a lab frame-of-mind.

Homework

Homework assignments will be posted on the course website. It is your responsibility to print the homework, complete it, and turn it in at the beginning of discussion. There will be 10 homework assignments throughout the semester. The homework will cover the information given in the lab workbook for the particular experiment that will be performed that week; see the course outline below. The lab workbooks can be found on the blackboard. You must read the entire lab workbook for the experiment before coming to discussion in order to be able to complete all in-class assignments (group problems and quiz) in time. This is also vital for completing the labs during your lab section in time.

Group Problems

Group problems will be handed out and completed during discussion. You may work in groups of 3 or 4, and you may use your notes. This is your opportunity to use the expertise of your TA and the collaboration with other students to help you understand the concepts better and prepare you for lab. Group problems will be turned in at the end of discussion. You will receive full credit for the group problems if you fully participate (TA's discretion).

Quizzes

Ten quizzes will be given throughout the semester during the last 10 minutes of discussion. You may use your group problems, but you must work alone. They will cover the concepts discussed during that discussion, focusing on lab-type problems.

Solutions to the homework, group problems, and quizzes will be posted on the course website on the following week.

Laboratory

There will be 10 labs throughout the semester, and you must complete all of them in order to receive credit for the course. Lab reports will be completed during the lab on the computer and saved to the central server at the end of the lab. The server automatically collects all saved files at the end of the lab, therefore, no extra time can be given to students who do not finish in time. It is very important that you read the lab workbooks (on blackboard) before coming to discussion and lab and that you work efficiently and ask lots of questions to your TA in order to finish in time. You will be working in groups of 2.

The final lab of the semester uses small radiation sources. These are not dangerous when used properly. A short **radiation safety quiz** will be made available to you later in the semester to ensure that you understand how to handle the material properly. The quiz is not part of your grade, but is a mandatory prerequisite to attend the final lab, which is mandatory for completion of this course.

Grades

This course does not have a set grading scale. Your score is determined in comparison with the overall performance of PHYS 108 students. Keep in mind that average scores for this course are generally quite high, meaning that many semesters it may take more than a 90% to get an A. You will be informed of your current grade at mid-term. You can also email the coordinators (listed at the top of this syllabus) at any time to get your up-to-date scores. The different components of this course will be weighted as follows:

Laboratory	Discussion
Lab Reports . . . 50%	Homework 10%
Participation . . 10%	Group Problems 15%
	Quizzes 15%
Total 60%	Total 40%

Absence and Tardiness Policy

Discussion

If you have an excused absence (illness with a doctor's note, religious observation, athletic competition, etc.), please provide documentation to your TA in advance or as soon as you become aware of your emergency so that he/she can work with you to schedule a make-up session. Make-up sessions can only be given during the same week as the missed discussion because the solutions will be posted the following week. This can be accomplished by either a) participating in another discussion section on the same topic (preferred) or b) in the office hour of one of the TAs. It is your responsibility to contact your discussion TA and notify them how you will be making up discussion work. Class time will not be specifically set aside for making up discussion work. If you wish to attend another discussion section during the week it must be approved by both discussion TAs. No make-ups will be given for unexcused absences, and you will receive zero points on that week's homework, group problems, and quiz.

If you are tardy to discussion, it is up to your TA's discretion how much credit you will receive for the group problems.

Laboratory

If you have an excused absence, please provide documentation to your TA in advance or as soon as you become aware of your emergency. Then, you may make-up the missed lab during the next make-up week. You must coordinate with your TA in advance to make up during the make-up week. **Remember, all labs must be completed in order to receive credit for the course!**

If you are tardy to lab, it is up to your TA's discretion whether you will be allowed to do the experiment. You may be asked to do the experiment without a partner or to make it up at another time.

Late Registration and Withdrawal

Friday, September 2 – Last day to complete late registration; last day to add a course(s) or make section changes; last day to drop individual courses via Student Self-Service without receiving W (Withdrawn) grade on academic record; last day to submit [Withdraw from Term request](#) via Student Self-Service and receive 100% cancellation of tuition and fees.

Friday, October 28 – Last day for undergraduate students to use optional late drop in college office and to receive grade of W on their academic record.

Important University Policies

Disability Accommodation

The University of Illinois at Chicago is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at UIC. Students with disabilities who require accommodations for access to and/or participation in this course are welcome, but must be registered with the Disability Resource Center (DRC). You may contact DRC at 312-413-2183 (v) or 773-649-4535 (VP/Relay) and consult the following: <http://drc.uic.edu/guide-to-accommodations>.

Academic Integrity

As an academic community, UIC is committed to providing an environment in which research, learning, and scholarship can flourish and in which all endeavors are guided by academic and professional integrity. All members of the campus community—students, staff, faculty, and administrators—share the responsibility of insuring that these standards are upheld so that such an environment exists. Instances of academic misconduct by students will be handled pursuant to the Student Disciplinary Policy: <http://www.uic.edu/depts/dos/studentconduct.html>

Religious Holidays and Observance

Students who wish to observe their religious holidays shall notify the faculty member by the tenth day of the semester of the date when they will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, the student shall notify the faculty member at least five days in advance of the date when he/she will be absent. The faculty member shall make every reasonable effort to honor the request, not penalize the student for missing the class, and if an examination or project is due during the absence, give the student an exam or assignment equivalent to the one completed by those students in attendance. If the student feels aggrieved, he/she may request remedy through the campus grievance procedure.

<http://oae.uic.edu/docs/ReligiousHolidaysFY20152017.pdf>

Grievance Procedures

UIC is committed to the most fundamental principles of academic freedom, equality of opportunity, and human dignity involving students and employees. Freedom from discrimination is a foundation for all decision making at UIC. Students are encouraged to study the University's "Nondiscrimination Statement". Students are also urged to read the document "Public Formal Grievance Procedures". Information on these policies and procedures is available on the University web pages of the Office of Access and Equity: <http://oae.uic.edu/>.

UIC Resources

If you find yourself having difficulty with the course material or any other difficulties in your student life, don't hesitate to ask for help! Come to one of us, or if it is about an issue beyond this class, please contact your college advisors, or get help from any number of other support services on campus. You can get a referral to the right place, or help on the spot, from concerned advisor in the Undergraduate Success Center (USC) at usc@uic.edu.

The Science and Learning Center, located in the Science and Engineering South Building (SES) 201B, is a meeting place for students in Biological Sciences, Chemistry, Earth and Environmental Sciences, and Physics. At the SLC, students can meet with graduate teaching assistants for tutoring in 100-level courses, arrange informal group study sessions with other students, or meet up with friends to attend one of the workshops, seminars, or other activities sponsored by the SLC during the semester. Visit the website at http://www.uic.edu/depts/bios/facilities/science_learning_center.shtml

Public Computer Labs are available throughout campus where you may write and/or print out your work. For a list of labs and the hours they're open, go to (www.accc.uic.edu/plabs). NOTE: Do not wait until the last minute to print out assignments. Sometimes labs have long lines of students waiting for access.

The Academic Center for Excellence can help if you feel you need more individualized instruction in reading and/or writing, study skills, time management, etc. Phone: (312) 413-0031.

Counseling Services are available for all UIC students. You may seek free and confidential services from the Counseling Center (www.counseling.uic.edu). The Counseling Center is located in the Student Services Building; you may contact them at (312) 996-3490. In addition to offering counseling services, the Counseling Center also operates the InTouch Crisis Hotline from 6:00 p.m.-10:30 p.m. They offer support and referrals to callers, as well as telephone crisis interventions; please call (312) 996-5535.

Campus Security

As a UIC student, you've chosen to live in one of the nation's largest cities. But, as at any university, crime is a reality. At UIC, we are strongly committed to our public safety programs, and we encourage students to be proactive in learning what programs and services are available in case of an emergency. You are DISCOURAGED from staying in university buildings alone, including lab rooms, after hours and are ENCOURAGED to use the POLICE/STUDENT patrol escort if you are uncomfortable traveling anywhere on campus. You may request an escort to accompany you to your campus destination on foot by calling 312-996-2830, and between 11:00 pm and 7:00 am you can dial the Red Car service (312-996-6800) if you are alone and need to leave the building. Through Red Car, the university has established a safe evening transportation service for university employees, students, visitors, and other authorized individuals. The car travels between university facilities within the following general boundaries: Clinton Street on the east; Western Avenue on the west; Jackson Boulevard on the north; and, 16th on the south. This service is available only to individuals possessing a valid UIC i-card. The i-card is required to ensure the safety of the driver and other passengers.

Consult the following for more information: <http://www.uic.edu/uic/studentlife/campus/safety.shtml>

Also you can subscribe your cell phone to receive text message alerts. An immediate SMS text alert will be sent in case of a serious crime in progress, a weather emergency, or other urgent situation (<http://sms.accc.uic.edu>).

Finally, by dialing 5-5555 from a campus phone, you can summon Police or Fire for any on-campus emergency. You may also set up the complete number, 1-312-355-5555, on speed-dial on your cell phone. For more information contact: <http://www.uic.edu/uic/studentlife/campus/emergency-information.shtml>

Fall 2015 – PHYSICS 108 COURSE OUTLINE

WEEK		DISCUSSION	LAB
1	Aug 22 - Aug 26	HW Due: None Group Probs: None Quiz: None	No Lab
2	Aug 29 - Sep 2	HW Due: #1 (on Exp. #1) Group Probs: #1 (Electrostatics) Quiz: #1	Exp. #1: “Electrostatics”
3	Sep 5 - Sep 9	Labor Day Week– No Classes	
4	Sep 12 - Sep 16 Wed. – Fri. Only	HW Due: #2 (on Exp. #2) Group Probs: #2 (DC Circuits) Quiz: #2	Exp. #2 “DC Circuits”
5	Sep 19 - Sep 23 Mon. – Tues. Only	HW Due: #2 (on Exp. #2) Group Probs: #2 (DC Circuits) Quiz: #2	Exp. #2: “DC Circuits”
6	Sep 26 - Sep 30	HW Due: #3 (on Exp #3) Group Probs: #3 (RC Circuits) Quiz: #3	Exp. #3: “RC Circuits”
7	Oct 3 - Oct 7	HW Due: #4 (on Exp. #4) Group Probs: #4 (Magnetic Fields) Quiz: #4	Exp. #4: “Magnetic Fields”
8	Oct 10 - Oct 14	HW Due: #5 (on Exp. #5) Group Probs: #5 (Induction) Quiz: #5	Exp. #5: “Induction”
9	Oct 17 - Oct 21	HW Due: #6 (on Exp. #6) Group Probs: #6 (EM Radiation) Quiz: #6	Exp. #6: “EM Radiation”
10	Oct 24 - Oct 28	Make-Up Labs – Coordinate make-ups with your TA	Make-Up Labs
11	Oct 31 - Nov 4	HW Due: #7 (on Exp. #7) Group Probs: #7 (Physical Optics) Quiz: None	Exp. #7: “Physical Optics”
12	Nov 7 - Nov 11	HW Due: #8 (on Exp. #8) Group Probs: #8 (Geometric Optics) Quiz: #8	Exp. #8: “Geometric Optics”
13	Nov 14 - Nov 18	HW Due: #9 (on Exp. #9) Group Probs: #9 (PE Effect) Quiz: #9	Exp. #9: “PE Effect”
14	Nov 21 - Nov 25	Thanksgiving Break Coordinate make-up labs with your TA for Mon-Wed	
15	Nov 28 - Dec 2	HW Due: #10 Group Probs: #10 (Radiation and Statistics) Quiz: #10	Exp. #10: “Radiation and Statistics”
16	Dec 5 - Dec 9	Final Exams – No Classes	