

THIS SHEET CONTAINS INFORMATION ABOUT PHYSICS 113. READ IT TODAY, CAREFULLY AND COMPLETELY, AS ONE PART OF YOUR CLASS ASSIGNMENT.

MISSED CLASSES AND COURSE DEADLINES

- NOTE:** Documentation is not required if you miss a class or exam due to illness
- MAKE-UPS:** No lab make-ups, no quiz makeups, and no midterm make-ups are allowed under any conditions.
- LAB EXCUSE:** The first missed lab is dropped automatically. If miss two labs, each for a serious, documented reason, contact Dr. Rallis within two weeks of 2nd missed lab.
- QUIZ EXCUSE:** The first two missed quizzes are dropped automatically. If you miss three quizzes, each for a serious documented reason, contact Dr. Rallis within two weeks of 3rd missed quiz.
- MISSED MIDTERM:** If missed for a serious documented reason, contact Dr. Rallis within two weeks of midterm. If excused, midterm score is replaced by prorated final exam score.
- REGRADE REQUEST:** Must be submitted within one week after you receive graded exam, no more than two weeks after exam returned to class. Regrade Request Forms in SM1011.
- OTHER EXAM PROBLEMS:** Report to instructor or Dr. Rallis within 24 hours of the exam.
- MISSED FINAL:** Contact Dr. Rallis within two weeks of exam. To receive a make-up exam, student must have a valid excuse and be doing passing work prior to the final.
- HOMEWORK:** No individual extensions are granted. Read the section: "On-line Homework Problems" for the only cases where a homework may be excused.

The Physics 111, 112, 113 sequence is a general physics course serving a broad spectrum of students, including biomed students, students in the School of Architecture, in agricultural science, education, etc. Physics 111, 112, 113 are each five credit-hour courses. The following is the statement from the University about GEC Physical Science courses.

"Physics 111 is a Physical Science course in the Natural Science category of the GEC. The goals and objectives for this category are:

Goals/Rationale:

Courses in natural sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment.

Learning Objectives:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students learn key events in the history of science.
3. Students provide examples of the inter-dependence of scientific and technological developments.
4. Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.@

The course meets these objectives through discussion of basic physics concepts and techniques with note as to their historical context. An understanding of these basic physics facts and principles lays the foundation for future investigations into many areas of modern science and technology. The student is provided the opportunity to strengthen understanding of these concepts by applying them to the solution of many varied situational problems and to investigating them via hands-on laboratory activities. When possible, these problems and activities emphasize the relevance of the concepts to current social or technological issues.”

COURSE
Physics 113

PREREQUISITE
Physics 112

Students in Physics 113 are expected to be familiar with the exponential and logarithmic functions. Appendices A, B, C, & E of the textbook contain a review of the mathematics used in this course.

Course Home Page: <http://www.physics.ohio-state.edu/> and click on “Courses” and then on “Physics 113”.

REQUIRED MATERIALS

1. WebAssignAccess Card and Textbook

The WebAssign access card is required for submitting homework in Physics 113.

The textbook is Physics by Cutnell & Johnson, 7th ed.

Physics 113 uses Chapters 10, 16, 17, 24, 26 – 31 of the Cutnell & Johnson textbook.

If you bought The Binder-Ready Version (BRV) of the textbook shrinkwrapped with three WebAssign Access cards in a previous quarter, then you already have the textbook and the required WebAssign Access card. You need only one WebAssign Access card per Quarter and it is valid only until the end of the quarter in which it is first used. The WebAssign Access Cards in the BRV package provide access on WebAssign to the electronic version of the textbook and to various supplements on WebAssign.

If you bought a used copy of the Cutnell & Johnson textbook, then you need to buy a WebAssign Access Card. These are sold separately at the local bookstores or from <https://www.webassign.net/osu/student.html>.

These do not include access to the electronic version of the textbook unless you pay extra on-line to upgrade them.

Lab Manual:

Worksheets for Physics 113 Laboratory, 17th edition (2009). Available in local bookstores.

You must buy a new copy of the laboratory manual as it contains worksheets for you to fill in during labs.

2. Pocket Calculator

A pocket calculator which has scientific (powers of 10) notation, trig. functions, and logarithms. Your calculator should be brought to every lab session and to examinations. A nonprogrammable calculator (e.g., TI-30) is preferred. PDA's ARE NOT ALLOWED. If your calculator is programmable, you must show your recitation instructor that the memory is cleared at the start of each examination. If you want to store material in your calculator memory for another course, you will need to obtain a different calculator for use during physics examinations. You are not allowed to use a cell phone as a calculator during exams.

FORMAT OF PHYSICS 113

Physics 113 has lecture sessions on Tuesday and Thursday. The weekly two-hour laboratory period will involve a combination of lab experiments and group-work activities on problem solving. The weekly one-hour recitation class on Mondays will usually include a quiz, a discussion of the assigned concept questions and a demonstration of problem solving by the recitation instructor. Unless otherwise noted, the recitation class on Wednesdays is intended for the recitation instructor to hold an office hour/tutor-room in the recitation room.

The dates for the quizzes, the midterm examination, and the final examination are listed on the Syllabus & Assignment Sheet. The quizzes and midterm are held in the recitation section. The final examination is held in the recitation room but at the time and date specified by the Registrar's schedule.

The date and hour of the final exam are determined by the hour of your Tuesday lecture, and thus the final exam will be

Wed., Dec. 9th at 7:30 AM – 9:18 AM in SM 1153.

HOMEWORK

The "Class Syllabus & Assignment Sheet" lists the specific homework assignments by date. All reading problem, and question assignments pertain to the Cutnell & Johnson textbook.

1. Reading Assignments

You should do the assigned reading before coming to lecture. You are responsible for all the material presented in lecture and for all material in the assigned reading, independent of whether it is covered in lecture. Try the self assessment tests when you complete reading the relevant sections of the textbook.

The self-assessment tests are on the Cutnell website:

<http://www.wiley.com/college/cutnell>. (click on Cutnell & Johnson, 7th edition) and on WebAssign.

2. On-Line Homework Problems

You must submit your answers to the homework problems on-line via WebAssign for grading. These problems are taken from the Cutnell & Johnson end-of-chapter problems but with **different numerical input values for each student**.

The sheet "on-Line Homework Instructions for Physis 111-112-113" describes how to

log into WebAssign.

Contact Dr. Bolland (bolland.1@osu.edu) if you encounter technical difficulties when you try to log into WebAssign. Please send your message to him in plain text, not in html.

Web Assign allows you to submit partially-completed assignments. Once submitted, each answer is marked right or wrong. **You may resubmit each problem up to 4 times before the deadline.**

The weekly deadline for on-line submission of homework is FRIDAYS at 8 PM.

WARNING: Think of the **DEADLINE as FRIDAY AFTERNOON** to give yourself a safety margin.

If you wait until Friday evening, and your computer goes down, you are out of luck.

No extensions of time for on-line homework assignments will be granted.

The only cases in which a student may be excused from an on-line homework assignment are:

- a) hospitalization
- b) extended illness of the student
- c) death of a parent or sibling
- d) military duty for the entire week

In those cases, present your documentation to the course manager.

No special arrangements will be made for a student away on an official university activity; such a student needs to submit the on-line assignment before they leave.

We urge you to submit partially-completed assignments a few days before the deadline. This will reduce the impact of possibly having your computer down (or some other personal disaster) close to the deadline.

3. Homework Questions

You are expected to come to recitation prepared to present your answers to the questions assigned for that day.

GENERAL ADVICE

Your full participation in class is expected. You should do the assigned readings and the assigned problems before coming to class. A general rule for college courses is that you should expect to spend at least two hours studying and doing homework outside of class for each hour in class. Learn the names of your lecturer and recitation instructor and confer with your instructors if you have difficulties with the course. Your recitation instructor is also your lab instructor. Your recitation instructor, not your lecturer, has the records of your exam and homework grades and is the person responsible for assigning your final course grade.

Instruction tutorials, interactive solutions, simulations and self assessment tests are all available on WebAssign and via the Cutnell & Johnson website: <http://www.wiley.com/college/cutnell>

CLASS ADDS AND SECTION CHANGES

Neither the lecturer nor the recitation instructor has the authority to sign an add slip or a change of section slip.

During the first week of the quarter use the Registrar's system if you want to add the course or change section. For prerequisite problems, contact Dr. Rallis in SM 1036B. Enrollment limits for Physics 113 have been set to the maximum. If you still have an enrollment problem by Sept. 25th, see Robin Wyatt in PRB 1040 K or Shelly Nelson in SM 1036.

LABORATORY

Laboratory starts the week of Sept. 28th.

To get credit for doing lab, you must show your lab worksheets to the instructor for a final check before you leave the lab. All laboratory work, including completion of the worksheet, must be done during laboratory class time. Students are not allowed to bring into the laboratory any material with data taken at other times (unless the experiment is a continuation from the previous lab session) or any sort of answers written in ahead of time. The presence of any such material in the lab will be considered evidence of intent to commit academic misconduct. At the very least, any such materials used for study prior to the lab should be tucked away where they cannot be retrieved easily, in a back-pack or other such carrying case.

More detailed information about the conduct and grading of the lab will be given at the first laboratory meeting. Expect to see lab-related questions on the quizzes, midterm, and final exam.

ABSENCE FROM LAB

1. Free Lab Excuse

You are allowed to miss one graded experiment. In doing so, you forfeit only the 3 bonus points for doing all the labs. Since questions on each of the experiments (including the last experiment) may appear on the exams, you should try to attend every lab session. The automatic dropping of one lab grade, however, allows you to miss one class (to cover situations such as transportation problems, an isolated instance of conflict with a job, illness) without your having to get official permission to do so.

2. What if you miss more than one lab:

If you miss two labs, each for a documented, serious reason, then contact Dr. Rallis to request to be excused from one lab in addition to the free lab excuse. For situations other than illness, you will need to present your documentation to her. You must contact her within two weeks of 2nd missed lab. Some examples of valid reasons for you to make such a request are:

- a)
 - a) illness or injury
 - b) death in the family
 - c) Representing the university in an official capacity and you have a letter from a university official requesting that you be excused (e.g., you are on the track team in a track meet; you are representing OSU at a national conference in your field)
 - d) Military duty
 - e) Jury duty

Some examples of lab absences for which you will not be excused from one lab beyond the free lab excuse:

- a) oversleeping
- b) confused about the day of the schedule
- c) vacation plans
- d) a time conflict with an exam in another course
- e) your pet died
- f) you are picking up a friend or relative at the airport.

Because the Physics 113 lab room is quite crowded this quarter, there will be no lab make-ups in Physics 113. Sorry about this.

NO LAB MAKEUPS ALLOWED FOR A CONFLICT WITH A MIDTERM IN ANOTHER COURSE.

If another course schedules a common midterm that conflicts with your regularly scheduled lab time, you must take the makeup midterm in that course. According to university rules, a course with a common midterm that produces conflicts with regularly scheduled courses must provide a makeup midterm.

NO REUSE OF A LAB GRADE FROM A PRIOR QUARTER IS PERMITTED.

COURSE MANAGER

In the event of a problem with the course that is not resolved by your recitation instructor, lab instructor, or lecturer, you need to contact the course manager, Dr. Rallis. Dr. Rallis is in Smith Lab 1036B, tel. 292-4464. e-mail: rallis.1@osu.edu.

COMMUNICATIONS

If you need to e-mail an instructor or the course manager, send your message from an osu address to preserve your privacy. Our spam filter often traps messages sent from other addresses. In the subject line, include "Physics 113." FERPA does not allow us to e-mail personal information to an address outside of OSU. Include in the text of the message the name of your recitation instructor.

When sending us a simple message, please don't send it in HTML.

GRADES

	Grade Composition
	<u>Points</u>
Quizzes (best 5)	100
Midterm	100
On-Line Homework	50
Laboratory (including prelab)	100
Final Exam	<u>150</u>
Total	500

Bonus: 3 points out of 500 for doing all labs during the quarter.

If for any reason, including illness, you miss participating in the activity for which bonus points are assigned, you do not receive the bonus points.

1. Attend the section in which you are registered.

Unless you take exams at Disability Services or unless, under special circumstances, you receive permission from the course manager to take an exam in a different section, you must take exams in the recitation section where you are officially registered. You must attend the lab section where you are officially registered. Otherwise, the appropriate instructor will not have the grade information on you and will enter a grade of zero. Check during the quarter that your name is on the roster for the section you attend.

2. Physics 113 is not posting exam or homework scores on CARMEN.

EXAMS

Your lecturer will discuss the character of the examinations in time for you to make adequate preparation. Copies of previous midterm examinations may be posted on the course website. These midterms are not necessarily those of your current lecturer and may contain typographical errors, but illustrate the types of questions asked.

The "equation sheet" policy for exams will be announced by the lecturer.

There are no makeup exams for the quizzes or the midterm exams. There are 7 quizzes per quarter. **To cover situations in which a student misses a quiz**, only the top five quiz grades

for each student will count. For example, you miss 1 quiz because of illness, that is one of the two quiz grades that is dropped. If you miss a midterm or a final examination for a serious unavoidable reason, then contact the course manager within 2 weeks of the date of the exam missed. If you missed a midterm for a serious reason, such as illness, you may be excused. Vacation plans are not an acceptable excuse for missing an exam. For exam-related problems other than missed exams, you must contact either your recitation instructor or your lecturer or the course manager within 24 hours of the exam. If you start an exam and then become too ill to continue, inform your instructor immediately.

Final exams are not returned to the students. **Use of cell phones during exams is not allowed.**

FINAL EXAM SCHEDULE

The final exam is 7:30 AM, Wed., December 9th. If you become ill or have a death in the family or have military duty, then contact Dr. Rallis to have the final exam rescheduled.

As there is only one Physics 113 lecture section, we are not rescheduling the final exam for a student who has 3 finals in one day but will reschedule the final exam for a student who has 4 final exams (including the physics final) on the same day. In that case, you need to contact Dr. Rallis before the deadline listed on the assignment sheet.

Note that there is no OSU rule about the number of final exams a student has to take in one day.

REQUESTS FOR REGRADING

If you believe that there has been an error in the grading or addition of points on an exam or quiz, you must obtain a "Request for Regrading" form available in 1011 Smith Lab. This form along with the exam in question must be submitted to your recitation instructor within ONE WEEK after you receive the graded quiz or exam, but no more than two weeks after it has been returned to the class. After extended absences that resulted in missing all classes for more than two weeks, see the course manager to request an extension to these deadlines. **WARNING:** The show-work pages of exams are photocopied before the graded exams are initially returned to the class. Exams handed in for regrading will be compared with the photocopy of the original; if you request credit for added or altered answers, it becomes an academic misconduct case.

ACADEMIC MISCONDUCT

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (http://studentaffairs.osu.edu/info_for_students/csc.asp).

Suggestions for improving the course or instruction in the course sequence are desired. Feel free to present them at any time to the lecturer or recitation or laboratory instructors or the course manager. Toward the end of the quarter you will be given the opportunity to complete a form evaluating various aspects of the course and the instructors.

STUDENTS WITH DISABILITY

Please contact the course manager at the start of the quarter so that arrangements can be made to accommodate you. Students needing the services provided the Office for Disability Services (ODS) will need to be certified by that office. The ODS is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

SCHEDULING CONFLICTS WITH OTHER SCHOOLS

Students who are enrolled at other colleges and universities, but who are taking courses at Ohio State, are expected to make the necessary arrangements to fulfill all course requirements. These include attendance in labs and being present for all exams. In particular, activities or classes at another school do not take precedence over exams here.

LIBRARY REFERENCE MATERIAL

The texts listed below have been placed on reserve in the Science and Engineering Library as "outside" reference books for the Physics 111, 112, 113 course sequence. Study of more than one point of view on a topic often proves helpful in resolving difficulties for beginning students.

RESERVE

- Cutnell and Johnson, *Physics*: 7th editions.
- Giancoli, *Physics*, 6th edition.
- Mathew, *Socratic Physics, Vol 1: Mechanics*.
- Mathew, *Conceptually Guided Questions on Electricity and Magnetism*.
- Hecht, *Physics*: 2nd and 3rd editions.
- Serway and Faughn, *College Physics*, 6th edition.
- Tipler, *College Physics*.
- Walker, *Physics*, 2nd edition.
- Giambattista, Richardson & Richardson, *College Physics* 1st ed.

Comments by Dr. Rallis about some of the above books:

The textbook by Giancoli and the textbook by Serway and Faughn are generally similar to the Cutnell & Johnson textbook in level and treatment of the topics. However, the 6th edition of the Giancoli textbook and the Serway and Faughn textbook are superior to Cutnell & Johnson for modern physics.

The books by Hecht are the best books for teaching problem solving techniques: they work out example problems in the fashion that we want students to use in thinking about a problem.

The Physics Workbooks by Mathew are recommended for students Physics 111 and 112 who are having difficulty with physics. They are collections of short multiple-choice questions with answers or solutions to 2/3 of the questions at the back of the book. They are meant (a) as exercises to train the student via a sequence of small steps. (b) to provide questions that a student can answer quickly as drill, and (c) to provide concept questions a student should be able to answer quickly (and if not, the student should reread the textbook or consult the instructor). After answering a whole set of short questions in Mathew, the student is better equipped to do the problems and questions in the Cutnell & Johnson textbook.

The Tipler text is recommended for the clarity of its explanations for Physics 112 and 113 students and for the better students in Physics 111. Giambattista et al. is recommended for Physics 113 students, particularly the chapters on Interference and Diffraction and Special Relativity.

In teaching problem solving, the Walker textbook presents the verbal description and equations side by side for each step. It is meant for Physics 111 and 112 students who require more assistance.

If you use any of the above books, aside from the required textbooks for this course, and would like to offer comments about them, please send your comments to rallis.1@osu.edu.