

THIS SHEET CONTAINS INFORMATION ABOUT PHYSICS 112. 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 make-ups, and no midterm make-ups are allowed under any conditions.

LAB EXCUSE: The first missed lab is dropped automatically. IF FOR ANY REASON, INCLUDING ILLNESS, DEATH IN THE FAMILY, AN OFFICIAL UNIVERSITY ACTIVITY, ETC., YOU MISS ONE LAB, YOU DO NOT RECEIVE THE THREE BONUS POINTS FOR DOING ALL THE LABS. If miss two labs, each for a serious, documented reason, contact the course manager 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 the course manager within two weeks of 3rd missed quiz.

MISSED MIDTERM: If missed for a serious documented reason, contact the course manager 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 the exam returned to class. Regrade Request Forms are available on-line and in SM1011.

OTHER EXAM

PROBLEMS: Report to instructor or course manager within 24 hours of the exam.

MISSED FINAL: Contact the course manager 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 112 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 112

PREREQUISITE

Physics 111

Physics 112 depends heavily on the material in Physics 111 and most students find that Physics 112 is more difficult than Physics 111. Students who received a grade below C- in Physics 111 are advised to repeat Physics 111 before taking Physics 112. Appendices A, B, C, & E of the textbook contain a review of the mathematics used in this course.

Course Home page will be on Carmen.

The syllabus, course policies, on-line homework instructions, etc. are also listed at <http://www.physics.ohio-state.edu/~phys112>

REQUIRED MATERIALS

1. WebAssign Access Card and Textbook

The WebAssign access card is required for submitting homework in Physics 112.

The textbook: Physics by Cutnell & Johnson, Ohio State Univ. Custom 8th ed. or regular 8th ed.

Physics 112 uses Chapters 16, 18 – 22, and 24 – 26 of the Cutnell & Johnson textbook.

If you bought the Binder-Ready Version (BRV) of the textbook shrink-wrapped with three WebAssign Access cards when you took Physics 111, then you already have the textbook and the 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 plan to take Physics 113 in SP 12, save the textbook and the extra WebAssign Access card until you have completed the sequence. When OSU switches to semesters, we shall change the textbook.

If you bought a used copy of the textbook when you took Physics 111, 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.

If you bought the complete 7th edition of Cutnell & Johnson when you took Physics 111, it is OK to use the 7th ed. for Physics 112 in place of the 8th ed. The assigned problems will differ, but students generally just download the problems from WebAssign.

2. Lab Manual: Worksheets for Physics 112 Laboratory, 19th edition (2011).

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.

3. 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 SHOULD NOT BE USED. 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.

NOTE: You are not allowed to use a cell phone as a calculator during exams.

HOMEWORK

The “Class Schedule & 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 the material in the assigned reading, independent of whether it is covered in lecture.

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 Physics 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.

WebAssign allows you to submit partially-completed assignments. Once submitted, each answer is marked right or wrong. The number of times that you may submit an answer may be limited. You will have a limit on the number of times you may submit an answer for a multiple-choice problem.

WARNING: The DEADLINE will not be changed, so give yourself a safety margin. If you wait until close to the deadline, and your computer or the server 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. Pre-Lab Assignments

Each lab experiment has a "pre-lab assignment" listed on Web-Assign, The deadlines for submission on-line of your pre-lab answers are listed on the Assignment Sheet and on WebAssign – check to make sure that you don't miss a deadline.

Except for multiple-choice questions, you may resubmit each problem up to 4 times before the deadline. We expect you to answer these questions even if you miss the lab. Each pre-lab assignment is part of your grade for that experiment. No extensions of

time for the pre-lab assignment will be granted, but if you are excused from the on-line homework assignment (for one of the four reasons listed above under On-Line Homework), that excuse can also apply to the Pre-Lab Assignment.

4. Homework Questions

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

FORMAT OF PHYSICS 112

There are five class meetings per week: lecture sessions each Tuesday and Thursday, recitation class each Monday and Wednesday, and a weekly two-hour laboratory. The Wednesday recitation will usually include a quiz and a demonstration of problem solving by the recitation instructor. The Monday recitation will usually consist of group-work activities on problem solving followed tutoring in the recitation room.

The dates for the quizzes, the midterm examinations and the final examination are listed on the Assignment sheet. Quizzes and the midterm examination are held in the recitation section, on Wednesdays as indicated. The final examination is held in the recitation room but at the time and date specified by the Registrar's schedule. The day and hour of the final exam are determined by the hour of your Monday recitation class, not your Tuesday lecture 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, and simulations are all available via the Cutnell & Johnson website: <http://www.wiley.com/college/cutnell> .

Wait List, Class Adds, Section Changes, and Disenrollment

Attend the first recitation and the first lecture even if you are not yet registered for Physics 112.

Neither the lecturer nor the recitation instructor nor the lab instructor or the course manager will sign an add slip or a change of section slip. We set limits for the recitation plus lab sections at the absolute maximum and will not override these.

Being first on the waitlist does not give you much chance of getting into that section. Brad Hefner in SM 1036 may be able to help you add Physics 112 if space opens up due to a student dropping the course, but you need to be flexible.

You will not be automatically dropped from the class if you stop attending. But SIS will remove you from all classes if you do not pay your tuition by the third Friday of the quarter. See your advisor if you expect scholarship funds to come in later.

LABORATORY

To get credit for doing lab, you must show your lab worksheets to the instructor for a final check and hand in the page of your lab manual specified by your lab instructor 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 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 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 without your having to get official permission to do so.

IF FOR ANY REASON, INCLUDING ILLNESS, DEATH IN THE FAMILY, AN OFFICIAL UNIVERSITY ACTIVITY, ETC., YOU MISS ONE LAB, YOU DO NOT RECEIVE THE THREE BONUS POINTS FOR DOING ALL THE LABS.

2. What if you miss more than one lab:

If you miss two labs, each for a documented, serious reason, then contact the course manager 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 documentation. You must contact the course manager within two weeks of the second missed lab. Examples of valid reasons for you to make such a request are:

- a) illness or injury
- b) death in the family
- c) appearance in court
- d) representing the university in an official activity or receiving an award and you have a letter from a university official requesting that you be excused (e.g., you are on the track team at a track meet; you are representing OSU at a national conference in your field.)
- e) military duty
- f) jury duty

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 or 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.
3. Because the Physics 112 lab room is quite crowded this quarter, there are no lab make-ups in Physics 112. Sorry about that.
4. **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.

COMMUNICATIONS

If you need to email an instructor or the course manager, add their email addresses to your “allow” list. Unless there is an attachment, please send your message in plain text. Include “Physics 112” in the subject line. Include in the text of the message the name of your recitation instructor and also your name.#.

GRADES

	<u>Grade Composition Points</u>
Quizzes (best 5)	100
Midterm	100
On-Line Homework	50
Laboratory (includes prelabs)	75
Final Exam	<u>175</u>
Total	500

Bonuses: These are in addition to the 500 regular course points.

- (a) 3 points for doing all labs during the quarter.
- (b) up to 3 points for participation in group work in recitation

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.

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.

The grading scale in Physics 112 is:

Final Average Grade	Letter Grade	Final Average Grade	Letter Grade
93% - 100%	A	77% - 79%	C+
90% - 92%	A-	73% - 75%	C
87% - 89%	B+	70% - 72%	C-
83% - 86%	B	67% - 69%	D+
80% - 82%	B-	60% - 66%	D
		< 60%	E

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.

There are no makeup exams for the quizzes or the midterm exam. 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 the 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

In the following cases, you will be allowed to take the physics final exam with the other physics 112 lecture section but you need to contact the course manager before the deadline listed on the assignment sheet.

- A student has 4 final exams (including the physics final) in the same day.
- A student has 3 final exams (including the physics final) in a row on the same day with no break between any of the exams (e.g. exam at 9:30 AM, 11:30 AM, and 1:30 PM.).

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 and on the course website. 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 regarding 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 AND COURSE EVALUATION

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.