

Physics 2004-2005

What You Need

1. A spiral bound college ruled notebook for taking notes in class and while reading the textbook. ([Bring to class daily](#))
2. A supply of 3-hole punched (not bound) college ruled paper for taking quizzes. ([Bring to class daily](#))
3. A graphing calculator with arithmetic, logarithmic, and trigonometric functions. The TI-83 or TI-83Plus or TI-84 are preferred. Needed for quizzes, exams, and class discussions. ([Bring to class daily](#))
4. A 4” 3-ring binder (“D” ring preferred) to hold assignment schedules, homework, quizzes, handouts, lab write-ups, reference tables, formula sheets, etc. Keep this organized and neat. ([Bring to class daily](#))
5. A supply of #2 pencils. ([Bring at least two to class daily](#))
6. Put your name on the notebook, calculator, and 3-ring binder.

Schedule

There are 100 lessons in the textbook. We will cover almost all 100 lessons by the end of the school year. Most lessons are covered in one class period each. We will cover these lessons in order until near the year-end.

You should read each lesson before the lecture covering that lesson.

Homework problems and laboratory due dates are listed in a schedule on the front board. ([Check it daily and update your schedule to match](#))

WebAssign problems will be available about one week in advance and are due by the due date and time given at the beginning of each assignment.

Late HW, labs, and other assignments are acceptable only by prior arrangement with the instructor. Late assignments with permission receive full credit. ([Late assignments without permission get no credit](#))

([Don't get behind on the reading, HW, or lab schedule. Talk to me if you are having problems getting organized or getting your work completed](#))

How the Grading System Works

There are three types of graded assignments. A brief description of each grade category and its percentage weight in your grade:

Class Participation – 5%

Students must participate in class by contributing to the discussion, answering direct questions, work problems with the class, and in numerous other ways. Prompt attendance is an important part of class participation. Students get one point each day for on-time attendance, and points for participation. Students who miss class and students who are absent or tardy are not eligible for participation points that day. These points are totaled and scaled before interim and quarterly reports. There is no carryover between quarters.

Homework – 15%

Homework assignments may be either on paper or on WebAssign. Homework assignments are scheduled approximately one week before the due date. The first five assignments of the school year are on-paper assignments. Most of the rest must be submitted on-line through WebAssign.

Missed homework assignments count zero. At the end of each quarter, not before, one out of every five homework grades will be dropped. For example, if there are seventeen homework assignments in the first quarter, the three lowest will be dropped when the quarterly grade is computed. (Even if you cannot complete every problem on a homework assignment, it is essential that you do as many as you can and make at least one WebAssign submission before the deadline.)

Labs – 30%

Thursdays are usually reserved for laboratory exercises. You will be notified of any changes in the lab schedule. No homework assignments are due on lab days. Lab assignments from the previous week are usually due on the next lab day. If you need to miss a class for any reason, Lab Days are your worst possible choice. ([Homework and Lab due dates are posted on the front board about a week ahead of the due date](#))

Lab assignments include a paper handout that must be turned in by 9:25 am on the due date, and many labs include a WebAssign component, which must be submitted through WebAssign. The WebAssign component of the lab write-up has its own due date and time that will appear on the assignment summary after you log into WebAssign and open the assignment.

Lab write-ups may not be turned in late without prior approval, and if they are late, you lose one point out of a possible ten points for each day late. Penalties may be avoided but only if illness is involved and the student discusses the problem with the teacher immediately upon returning to school. (Completeness, methodology and timeliness are all considered in the lab grades.)

Quizzes – 50%

These are given in class in the first 6-10 minutes. Those who skip class or arrive late will have to take the make-up the next morning before 9:25 am or receive a zero on the quiz. Students who miss a whole day of school due to illness must make up the quiz in the morning before 9:25 am on the first day of their return. Those who are in school but miss Physics class for reasons other than illness must take a make-up quiz either that morning before 9:25 am (before they leave) or the next morning before 9:25 am. Missed quizzes may not be delayed past the day of your return without prior approval.

Each student is responsible for finding out if a quiz will be or has been given and showing up at the appropriate time to take the make-up quiz. Check with the instructor for definitive answers to these questions. Other students don't know for sure.

Do Not Skip class or miss class for any reason other than illness. Late make-up quizzes allowed for non-illness reasons on the same day the quiz is given in class, or the next morning, only.

Semester Exams

There will be one Semester Exam at the end of each semester. Semester Exams cover all material presented in the course to date. These exams count for 20% of your SEMESTER grade. Take these exams very seriously.

Example: Suppose your quarter grades are 91 and 92. The exam could pull those A⁻ grades up to an A with a 99 on the exam. On the other hand, if your exam grade is a lowly 55, your semester average becomes an 84 and you'll get a B. It happens every year.

Quarterly and Semester Grades

Quarterly grades are based

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|------------------------------------|
| 50% on quiz grades, |
| 30% on laboratory grades, |
| 15% on homework grades, and |
| 5% on class participation. |

Semester grades are based 80% on the quarterly grades and 20% on the Semester Exam.

Other Rules

- You may not borrow any assignment from another student; not even after the due date.
- If you turn in an assignment for another, you must hand both assignments to the instructor personally and provide an explanation.
- Arrive on time. Don't arrive late without a note from Mrs. Cosby.
- Do not interrupt the instructor or other students.
- Do not study other subjects during your Physics class.
- Do not do HW (not even physics HW) during your physics class.
- Do not bring food or drink to class (water and some exceptions may apply to individual situations or students). No gum or candy.
- Do not deface books or surfaces in the classroom.
- Wait for permission to leave class.
- No cell phones, games, CD players, etc. allowed in class.
- Do not attempt to arrive or leave by the back door (except during some emergency evacuations). The back of the room is off-limits except with permission of the instructor (to use the computers, for example, and to work on the labs).
- Work every day. Stay current.
- Do not disrupt the class or the teaching process.
- Bring all required materials to each class.
- Keep track of your stuff and respect the stuff of others.
- Pay attention in class at all times. Bring your calculator.

General Organization of the Course

A typical weekly schedule includes lectures on Monday, Tuesday, Wednesday and Friday. Thursday is usually reserved for laboratory exercises. Sports, trips, outings, etc. are not excuses for missing assignment due dates. You can always turn-in any assignment early.

The instructor will be reasonably flexible working around unavoidable conflicts provided students discuss them with him in advance.

1. We will cover one lesson each lecture day. Homework assignments available on WebAssign cover one lesson each. Homework problems serve as the basis for the quiz problems. If you don't do the homework, everything else is that much harder.
2. Each lecture session will begin with a 6 to 10-minute quiz. You must bring your own calculator for working quiz problems. Sharing calculators is not allowed. Quiz questions will not cover the homework due that day. Quizzes can, however, include questions on any subject covered in any earlier assignment. Quiz questions are very closely related to homework problems.

Approximately once a month a day will be set aside exclusively for problem solving practice. This is in addition to the amount of time spent daily working on problem solving.

3. Once a week, usually on Thursday, we will conduct a laboratory exercise. The lab report, including all ancillary attachments, such as graphs, additional exercises, etc., is due one week later. Students who miss a lab must first meet with the instructor to explain the absence and then perform the experiment either before school or during 7th period. The lab due date will be the same for everyone.

If you miss a laboratory day, you are responsible for picking up a copy of the lab handout. You may **not** copy data from another student. The instructor will either provide you with a set of data or assist you in performing the laboratory exercise for yourself during 7th period. The lab write-up due date is the same for all students. Absent, skipping, or otherwise missing students must complete the lab on their own time and finish the write-up and any WebAssign problems by the same due date as the other students, unless special arrangements are made in advance with the instructor.

Many lab problems are only available on WebAssign. These problems must be submitted on-line through WebAssign by an assigned time on the Saturday following the Thursday when the lab write-up was due.

Sometimes the lab problems are printed in the lab handout. If the problems are printed in the handout, then the solutions must be attached to the back of the write-up when turned submitted with the rest of the write-up on Thursday.

Physics – Trinity Valley School – Dr. Mitchell A. Hoselton

August 1, 2003

4. We also have a number, seven at last count, of lab support activities. These cover mathematical reviews (2), introductions to Excel spreadsheets (2), and introductions to our graphing program, *Graphical Analysis*, and to our mirror and lens analysis program, *GeoOptics*. These activities will be graded and scored as additional laboratory grades. Due dates for these will be announced at the time the assignments are handed out. Usually they are due at the end of the period spent in the computer lab.
5. Cheating will not be tolerated.

The first instance of copying or sharing, or turning in someone else's lab write-up will earn a zero on that assignment for both parties. This is true whether the assignment is homework, a lab, a quiz, or an exam. Subsequent instances will earn a zero and will be referred to the Head of the Upper School and the Honor Council.

One place where students may appropriately work together outside of the classroom is on the WebAssign assignments provided that each student completes his or her own work. The WebAssign problems are different for each student. Working together to understand the methods of solving problems is an acceptable learning activity provided each student completes his or her own problems.

6. Each student receives a textbook. Bring it to class with you each day. There are a small number of classroom copies of the textbook available for emergencies. There are not enough of them for everyone to use in class, however. Do not remove the classroom copies of the textbook from the classroom. Use your own textbook for work outside of the classroom.
7. Students who need to work on physics assignments during the day may, with the permission of the instructor, work at the back tables in the physics room during their free periods and before and after school hours. This provides students with ready access to the computers, textbooks and all available physics resources, including questions for and assistance from the instructor.

All physics students are encouraged to use the physics room and the physics computers both before and after school to work on their Physics assignments.

8. Cell phone use is not permitted at any time for any purpose.

Cell phones will be confiscated if visible and turned in to Mr. Fleming. You will need to visit him to get them back.

Tips for Success

1. Do your homework. Quizzes are taken (almost) directly from homework and if you do all the homework your opportunities for success on quizzes are greatly improved. Because quizzes are such a large part of your grade, **doing the homework is clearly the single most important key to success in physics.**
2. Never assume that you understand a physics concept. Vague knowledge is useless in physics. Study until you are sure you understand each concept. Review to reinforce that understanding.
3. Never fall behind. Spend **at least one hour** (*for a significant number of students more than one hour will be required*) every day on your physics assignments. Reading and studying will generally take some additional time each day. Stay current. Develop a regular study schedule and stick to it.
4. Read and re-read your lecture notes, handouts distributed in class or available on the Physics web site, and the textbook. Then study each chapter again while you are working the homework problems and laboratory problems. You are responsible for every word of every chapter, every lab, every handout and every lecture associated with this course. (The curve-ball questions and their answers at the end of each lesson are often very enlightening.
5. Be neat (but not obsessive). If the instructor can't read what you've written, your grade will be zero. Sloppy, messy, crumpled, and otherwise lazy lab and quiz work is subject to point deductions for lack of readability.
6. Don't disrupt the class. Class time is valuable. Students who need the class time to learn the material will not appreciate receiving less help than they need because you feel entitled to be rude or disruptive.
7. Outside of normal classroom hours, the best time and place to study physics in the Physics Lab is before 8:15 in the morning and during 7th period until 3:30 pm in the afternoon. While there you have access to the instructor, the computers, and all the other physics-related materials you might require.

One overriding rule: Always stay in contact with the instructor. Discuss any scheduling problems sooner rather than later. You are responsible for maintaining contact and keeping the instructor informed if you think you need a personal adjustment in the schedule. Do not wait until after you've missed an assignment. By then it is going to be too late.

Real Life is NOT Like School – Get used to it!

To anyone with kids of any age, or anyone who is or ever has ever been a kid, here's some advice Bill Gates recently dished out at a high school speech about ten rules they have not and will not learn in school. He talks about how feel-good, politically correct teachings created a generation of kids with no concept of reality and how this disconnection from reality set them up for failure in the real world.

Rule 1: Life is not fair - get used to it.

Rule 2: The world doesn't care about your self-esteem. The world does expect you to accomplish something BEFORE you start feeling good about yourself.

Rule 3: You will NOT make \$100,000 a year right out of high school. You won't be a vice-president with a car until you earn both.

Rule 4: If you think your teacher is tough, wait until you get a boss.

Rule 5: Burger flipping is not beneath your dignity. Your grandparents had a memorable word for any job they could get -- they called it an opportunity.

Rule 6: If you mess up it's not your parents' fault or your teachers' fault; it's all yours. So don't whine about it. Learn from your mistakes and move on.

Rule 7: Before you were born, your parents weren't as boring as they are now. They got that way from paying your bills, cleaning your clothes and listening to you talk about how cool you are. So before you set out to save the rain forest from the parasites of your parents' generation, try delousing the closet in your own room.

Rule 8: Your school may have done away with winners and losers, but life has not. In some schools, they have abolished failing grades and they'll give you as many times as you want to get the right answer. This doesn't bear the slightest resemblance to ANYTHING in real life.

Rule 9: Life is not divided into semesters. You don't get summers off and very few employers are interested in helping you find yourself. Do that on your own time.

Rule 10: Television is NOT real life. In real life people actually have to leave the coffee shop and do a job.

In this course you are expected to demonstrate responsibility for your own actions, complete all your assignments yourself, work hard to succeed, participate actively and politely in all discussions, treat your instructor and fellow students with respect, accept the consequences for your bad decisions, try to avoid making them in the future, and reap the benefits of your own efforts. If you can do all that, you will certainly succeed.

Contract for all students taking Physics in 2004-2005

I AFFIRM AND AGREE THAT I SHALL:

NOT CHEAT or ask another to cheat on my behalf

ATTEND class every school day except in unforeseen and unavoidable circumstances, such as illness

ARRIVE in class on time

WORK hard to understand all that I am taught,

COMPLETE all my assignments on time,

TREAT everyone with respect and courtesy,

NEVER whine about the workload,

SCHEDULE make-up quizzes and labs promptly with my instructor,

NOTIFY my instructor in advance in person and in writing of any scheduled absences and discuss a schedule for make-up work at that time,

APPLY my best efforts at all times to learning and mastering the subject matter and techniques introduced in this course,

KEEP an updated schedule of what assignments are due and when,

TAKE careful and complete notes of every lecture,

KEEP all my old assignments and lecture notes in a 3-ring binder for later study and review.

ACCEPTED AND AGREED

This _____ day of _____, 20_____

Signed _____, printed name _____

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