

# Freshmen Physics

## Rules of the Road

### 1. Usual Motivating Paragraph

This is a laboratory course in Physics that prepares the students in physics by covering the appropriate Next Generation Science Standards. The essential topics are forces and motion, fields and forces at a distance, energy and its conservation, wave phenomena, and earth and space science. In class the emphasis is on concepts, lab work, and making appropriate connections between observation and inference through inductive and deductive reasoning.

### 2. Contact Info

Teacher: Mr. Nate Fulmer  
Email: [nfulmer@lcusd.net](mailto:nfulmer@lcusd.net)  
Website: [fulmerphysics.weebly.com](http://fulmerphysics.weebly.com)

I will check my email on the regular; it's the best way to get ahold of me.

### 3. Required Materials

Come to class each day fully equipped with the following tools of the trade: writing utensils (pen or pencil), scientific calculator (you may use graphing calculators for in-class work and homework, however, graphing calculators will NOT be allowed on tests or quizzes), college rule paper, textbook

Our textbook for the year is *Conceptual Physics* by Paul G. Hewitt. The textbooks will be provided, and the student will be responsible for their care until they are returned at the end of the school year. Additional readings will be provided regularly in the form of digital PDFs and/or handouts.

### 4. Class Rule(s)

I have one rule in my class: DDDT

Don't

Do

Dumb

Things

If you can abide by this one rule, things will go swimmingly.

#### a. How to avoid doing dumb things

- Respect yourself, the teacher, classmates, and the classroom environment
- Be punctual
- Refrain from distracting your classmates
- Do not cheat. Academic dishonesty of any kind will result in a zero mark, family will be contacted, and the student responsible will be referred to the Honor Court
- In general, before doing something, ask yourself, "Is this a dumb thing to do?" If the answer is yes, then don't do it!
- Be prepared, alert, and ready to learn!

#### b. What if I do dumb things?

Failure to adhere to classroom expectations will result in progressive disciplinary action: verbal warning, parent phone call, detention, referral, suspension - depending on the severity of the offense.

## 5. Grade Breakdown

Grades will be built on a system of experience points. Experience points can be gained by completing assignments and projects and by answering questions correctly on tests and quizzes. Every assignment, quiz, exam, or project will have its points collected in a single, unified pool. Students' grades will be determined by a single value: Total Experience Points (EXP). A letter grade will be ascertained by comparing the Total EXP to total possible EXP thusly made available.

For example, a student who gets 400 EXP out of a possible 500 EXP on an assignment, 1600/2000 EXP on a quiz, and 4500/5000 EXP on a project will have a Total EXP of 6500 out of a possible 7500. That comes out to 87%, or a B.

A	$\geq 90.0$
B	80.0 – 89.9%
C	70.0 – 79.9%
D	60.0 – 69.9%

## 6. Assignments

Assignments include in-class work, homework, and lab notebooks. Completion of a particular assignment will earn the student an allotted number of experience points. Assignments are graded based on completion and quality of the work. Late assignments will be accepted for reduced credit.

## 7. Quizzes

Quizzes are used to assess your ability to recall information and apply knowledge. *Anything* from lecture notes, homework, and assigned reading will be fair game for quizzes.

Quizzes will be short (consisting of only a few questions) and given weekly. They will almost always be assigned to be completed in a group of two or three. Each group will be allotted experience points corresponding to the correctness of their answers.

If the student is absent on the day of a quiz, *there will be no make-up quiz*. A missed quiz will neither help nor hurt you and can be compensated for on future quizzes.

## 8. Exams

Exams will take place at the end of each unit and will examine that unit's material comprehensively. Long-form midterms/final exams may replace unit tests. The final exam is meant to assess the student's retention of the semester's content as well as his or her test taking skills. The second semester final will only explicitly test second semester material but will use tools and draw from knowledge gained during the first half of the school year.

## 9. Sample Test Questions

**MC:** Sphere *A* carries a charge of +2 coulombs and an identical sphere *B* is neutral. If the spheres touch one another and then are separated, the charge on sphere *B* would be

- A. +1 C
- B. +2 C
- C. 0 C
- D. +4 C
- E. none of the above

**FRQ:** Even tiny Pluto has its own moon, Charon. If Pluto and Charon experience  $3.47 \times 10^{18}$  N of force due to gravity, how far apart must they be?  $M_P = 1.31 \times 10^{22}$  kg,  $M_{Ch} = 1.52 \times 10^{21}$  kg

## 10. Tardies & Absences

What follows is the policy regarding tardies and absences as laid out by LCUSD

### a. Tardies

*2 unexcused:* The autodialer (called School Messenger) sends voice mail and email to parents

*3 unexcused:* School Messenger sends voice mail and email to parents

*4 unexcused:* Will result in a “U” in citizenship for the quarter. Admin. sends an Unexcused Tardy letter home. Admin. will revoke lunch and/or parking permit for lower than overall 2.5 citizenship at the Quarter.

*5+ unexcused:* Admin. will assign detentions and/or Saturday schools

### b. Absences

*1 for any reason:* School Messenger sends voice mail and email to parents

*3 for any reason:* School Messenger sends voice mail and email to parents

*4 unexcused:* Admin. sends an Absence letter to home

*6 unexcused:* Admin. sends Truancy letter home

*6-8 for any reason:* Counselor meets with student

*7 for any reason:* Admin. sends letter #2 home. Possible parent conference

*9 for any reason:* Admin. adds student to “No-Go List” and notifies student and parent

*10+ for any reason:* Admin. initiates SST or SART (School Attendance Review Team)

*10+ full day absences per semester:* Admin. initiates SARB (School Attendance Review Board)

## 11. Lab Safety

While working in the laboratory, you will have important responsibilities that do not apply to other classrooms. You will be working with materials and apparatuses that, if handled carelessly or improperly, have the potential to cause pain, serious injury, or death. A science laboratory can be a safe place to work, if you are alert, cautious, and follow directions with care. The following practices should be studied:

**Laboratory Preparation** – Read the procedure and complete any pre-lab assignments before coming to class. Follow the directions precisely (but paraphrase them) and make note of any changes in procedure given.

**Eye Protection** – Wear safety goggles at all times when doing an experiment involving chemicals. If a chemical splashes into your eye, use the wash fountain by irrigating your eye continuously for 15 minutes. Notify me immediately. Never direct water from the faucet into the eye as the high pressure may cause more damage.

**Conditions of Work Area** – You should maintain a work area that is free of books, coats, book bags, chemical spills, excess chemicals, and trash. No objects should be on the floor as this may cause someone to trip and fall. Cleanup spills immediately.

**Disposal of Waste Material** – Waste paper, towels, and other trash must be discarded in the wastebaskets; waste chemicals in the labeled waste containers. Do not throw matches into wastebaskets except after running water over them.

**Chemical Spills on Your Body** – A safety shower is located in the laboratory and should only be used to wash chemicals from your body if the sink is not sufficient. Contaminated clothing should be removed as soon as possible.

**Fire on You or Your Lab Partner** – STOP, DROP AND ROLL. Someone should immediately retrieve a fire blanket to roll in. Never wrap a fire blanket around someone who is standing up, as this will cause the fire to rise to the head and chest area. If you are near the safety shower, get under it instead.

**Fire in the Laboratory** – Notify the teacher immediately if any smoke or fire is seen and then follow their instructions.

**Accident Reports** – Report any accident to the teacher immediately, no matter how minor. This includes any burn, scratch, cut or contact with corrosive liquid (acid or base). Also report any defective or broken equipment and other potential dangers at once. But most important remember to stay calm.

**Safety Stations** – Know the location of the emergency shower, eye wash fountain, fire extinguisher, safety goggle storage, and exits.

**Hair** – Confine long hair with a band, hairpins or a hairnet.

**Eating and Drinking** – Since there is a possibility of food substances becoming contaminated, no eating or drinking is allowed in the laboratory.

**Laboratory Conduct** – Be courteous and exercise common sense. There will be no practical-joking, running, pushing or horse-play.

**Unauthorized Experiments** – Under no circumstances should you conduct any experiment other than those that have been assigned, unless you have discussed it with me and have my permission.

**Hands** – Wash your hands in the sink before you leave the lab. Avoid touching your eyes and face. Under no circumstances are you to apply make-up in class.

**Electrical Appliances** – Always remove an electrical plug by the plug and not the cord.

**Physics Syllabus Agreement**

**My signature indicates that I have thoroughly read, understand, and agree to the above-mentioned policies and expectations of Mr. Fulmer's physics course and assume full responsibility for any and all repercussions as a result of non-compliance.**

**Student Name:** \_\_\_\_\_

**Student Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_