



# Physics

2016 – 2017

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<b><u>Textbook:</u></b>	<u>Conceptual Physics</u> (Prentice Hall, 2009) (Available online @ <a href="http://www.pearsonsuccessnet.com/">www.pearsonsuccessnet.com/</a> )

**Course Description:** Physics is an introductory course designed to give students a foundational understanding of how matter and energy interact and meets the Oregon Department of Education standards. The course will focus primarily on mechanics (the study of forces and motion), though much consideration will also be given to the nature of science (how science behaves), scientific inquiry (the skills necessary to “do” science), and engineering (the application of science to design technology). It is strongly recommended that all students who achieve success in this class and find the study of physics fruitful pursue taking IB Physics I.

Please note that due to the emphasis on problem solving and the inclusion of considerable laboratory work, many students find this course requires a significant investment of time outside of class. To be successful, students should plan on spending an average of 20-30 minutes a day, sometimes more, in independent study. Forming before-school, after-school, or lunchtime study groups with peers and/or making time to see the teacher before school or after school for extra help can be helpful for those who find the coursework difficult.

**Homework:** Homework will be assigned regularly. Completing homework assignments consistently and on time will be essential to achieving success in this course.

**Instructional Delivery:** The teacher will teach the necessary content and skills needed to complete assignments, tests, projects, labs and activities. You will work as a team member in all lab work, but will also be responsible for individual, independent projects. Teaching methods in this class include lectures with note taking, demonstrations followed by class discussions, hands-on and problem solving activities, videos, readings, games, cooperative group tasks, independent work, and many others. Readings from your physics textbook will be assigned inside and outside of class. The teacher provides the course expectations, individual/class guidance, instruction, and manages the class *but it is the amount of effort and self-motivation you put in that will determine your success in this course.*

## **Course Goals:**

The student will be able to:

- Work both cooperatively and independently to develop positive academic habits and attitudes.
- Demonstrate the importance of safety by applying safety skills in all activities.
- Demonstrate an understanding of physics content and successfully apply physics and math related skills.
- Demonstrate satisfactory mastery of certain lab skills and techniques.
- Recognize physics principles in the surrounding world.
- Understand the requirements needed to pursue a career in a physics related field.
- Know and apply the steps of engineering design in an attempt to create/refine technology.
- Demonstrate the skills necessary to engage in scientific inquiry.
- Demonstrate a basic knowledge & appreciation for the origin, evolution, and nature of science.

## Academic Grading:



### **Quarter, Semester, and Year Grades**

At the end of each quarter, the percent is calculated on all your work for that quarter and a letter grade is assigned based on the "Evaluation" policy (stated below). In order to earn one science credit, you must earn a grade of "D" or better for each quarter of this course. In order to graduate, you must earn 3 science credits.

### **Evaluation**

Your grade is based on the following components:

<b>Components</b>	<b>Method of Evaluation</b>	<b>~%</b>
<b>Quizzes &amp; Exams</b>	Unit exams on content knowledge and practical problems	<b>70</b>
<b>Labs/Reports/Projects</b>	Demonstration of chemistry/science lab related skills and techniques; written, visual, and oral presentations; quality of finished products	<b>30</b>
<b>Assignments/Homework</b>	On time and complete attempt of in and out of class practice work	<b>0</b>

#### **A (100-90%)**

- Exhibited advanced mastery of course learning objectives.

#### **B (89-80%)**

- Mastered course learning objectives.

#### **C (79-70%)**

- Met the standards.

#### **D (69-60%)**

- Approached meeting the standards.

#### **F (59% and below)**

- Little or no evidence of meeting standards.



## Behavior Grading

In an effort to ensure that an earned grade strictly corresponds to level of content mastery, much effort will be made to keep behavior and academic evaluations separate. A means with which to report a "behavior grade" is still a work in progress, however the following behaviors will be assessed:

### **Habits**

Meeting deadlines, completing assignments and tasks, organization, neatness of work, participation in class, etc....

### **Respect**

Attitude, working successfully as a member of a group or team, following classroom rules, ability to avoid discipline referrals, basic manners, basic respect for others, etc....

### **Attendance**

Tardies, unexcused absences, amount of school missed in general, etc....



## Late Work Policy:

### **Assignments, Reports, and Projects**

All work will be assigned a definite due date and time. Work is considered late if not turned by this date/time. Student will be given behavioral consequences if a pattern of turning in work late starts to develop.

### **Labs, Tests, and Quizzes**

It is the expectation that missed labs, tests, and quizzes will be made up within 5 school days from your day of return.

### **Late Work Due To an Excused Absence...**

If absent, it is the student's responsibility to find out what was missed, obtain the necessary notes and worksheets/handouts, and turn in missing assignments in a timely manner. If absent and excused, follow the following procedure:

1. Determine what was missed on day(s) absent by asking a classmate or checking the online calendar.
2. Copy missed notes from a trusted classmate or download from the website.
3. Locate and retrieve the missed paperwork by downloading from the website.
4. Attempt to learn as much of the missed material as possible independently using the notes, classmates, relevant sections of the book, video tutorials found on the website, and homework keys. Only after you have exhausted these resources should you approach the teacher who at that point will be happy to provide any additional clarification.
5. Complete assignments and correct them in a timely manner.

Late work will be accepted without penalty within the same number of days absent plus one. After that, it will be considered late and subject to late work consequences.

**Note:** *Late work, even if less than two weeks old, will not be accepted after the Friday before exam week.*

## Behavior, Classroom Guidelines & Information on Attendance:



### Expectations

Students are expected to follow the policies of Tigard HS which define the behavior and disciplinary expectations for all students. In addition, the class safety rules are to be followed, without exception. My personal behavior expectations, which include the previous mentioned policies, are:

<b>Behavior</b>	1. Show respect for everyone in the classroom, their feelings (no put downs or foul language) and their property 2. Do not infringe on the rights of the learner to learn or the teacher to teach 3. Follow school rules
<b>Safety</b>	4. ALWAYS follow lab safety guidelines
<b>Academic Honesty</b>	5. Refrain from participating in or contributing to academic dishonesty (i.e. copying work, cheating, plagiarism, forgery, etc...)

### Consequences

All serious infractions will be immediately referred to the school administration. Consequences for other violations may include any or all of the following:

<b>Behavior</b>	<b>Step 1:</b> Warning or reprimand by teacher <b>Step 2:</b> Lunch or after school detention assigned by the teacher and/or call to parents by the teacher. Referral given for no show. <b>Step 3:</b> Referral to the counselor and/or VP
<b>Safety</b>	Consequences for any student behavior that threatens the safety of the students (themselves included) and/or the teacher will be immediate and severe.
<b>Academic Honesty</b>	Academic dishonesty will be taken very seriously. Consequences for any form of academic dishonesty will be determined on a per case basis.

## Attendance:

### Unexcused Absences

Unexcused absences, due to any reason, will be immediately reported to the administration. Note that students who arrive after 30 minutes of class time has passed will be marked absent.

### Excused Absences

All absences must be reported by calling our school attendance line at 503-431-5430.

### Tardy Policy

All students are to be in class, SEATED with backpacks and/or purses put away, ready to start work at the sound of the bell, otherwise a tardy will be given. The following tardy policy will be STRICTLY enforced:

**1st & 2nd tardy:** Verbal warning

**3rd & 4th tardy:** Detention (lunch or after school). Referral given for no show.

**5th tardy:** Administrative Referral

**Note:** As per Tigard High policy, parents are NOT allowed to excuse a student's tardy. If getting to school on time is problematic in your home, start planning now on how to overcome your situation - for regardless of who is at fault, if you are late to class it will be a recorded tardy.



### Supplies That Should Be Brought To Class Everyday:

- ✓ Binder or section in general school binder for this class only which should contain the following in order:
  - Assignment Log
  - All handouts, assignments, labs and notes for this class
  - Extra lined folder paper
- ✓ Calculator, Protractor, & Writing Utensils
- ✓ Headphones/ear buds

### Items Not Allowed In Class:

- ✓ Cell phones and other personal electronics
  - Personal electronics include gaming devices, MP3 players, cameras, camcorders, and all other personal devices of this nature.
  - If seen by teacher during class time, detention will be issued. **NO TOLLERENCE!** The only exception is for recording class assignments on your phone during the last 3 minutes of class.
- ✓ Food and drink
  - Food and drink includes **any** food items and **all** drinks other than water.
  - You may consume a snack within the 1<sup>st</sup> 5 min of class, after that...
  - If any food or drink is seen by the teacher it will be seized and disposed of.

### Website:

The class website found at <http://cablesscience.weebly.com/> will be available to view the class calendar, download missed notes/assignments/practice quizzes/study guides, complete online activities, correct homework, gain access to a online version of the text, get remediation on science basics, get extra practice, and explore enrichment activities. The password for the site is **tigard**.

### Bathroom Passes:

Students are allowed to use the restroom with the teacher's permission, preferably during times when direct instruction is not taking place. Students will be put on probation or lose the privilege to use the restroom if overly frequent trips to the restroom begin to hinder learning. Emergency situations do not apply.

### Hints For This Class:

My goal as a teacher is to have all students pass the course with a letter grade of A. Since this is the case, I will give you all of the tools necessary to achieve this grade. In order to reach this goal, let me suggest the following:

- Attendance is essential to succeed in this course, as most activities cannot be performed at home and therefore cannot be made up. **Attend Class!**
- Understand that as a teacher, I don't give grades. The truth is that you, as a learner, earn them. It takes work to earn something, so be prepared to work hard. **Work hard!**
- I will present the information in a way I think you will understand. Even so, not everyone learns the same way. I know and respect this, so I welcome additional questions. In the end, you are responsible for what you learn in this course. Do not be afraid to seek additional help. **Ask questions and seek help!**
- The class is set up so that the notes prepare you for the assignments, which prepare you for the labs and activities, which prepare you for the study guides, which prepare you for the tests that comprise the majority of your grade. If you complete each step in the path, a good score on the test is very achievable. **Don't cut corners!**
- Life is what you make of it. You decide how you want to see the world before you even open your eyes. Approach this class with excitement and curiosity, and the work you put into it will become enjoyable. **Keep a good attitude and have fun!**



# Study Guide Quiz 0.1: Physics Syllabus

1. What is your instructor's name and is he/she available for extra help?
2. What four main areas of physics/science will this course cover?
3. Will there be homework? Will it be important to complete the nightly homework?
4. What will determine your success in this course (see the statement in italics on the first page)?
5. Summarize the goals of this course.
6. What letter grade do you need to earn to pass this course?
7. How are semester grades calculated?
8. Fill in the following percentages:

Component	~ %
Quizzes & Exams	
Labs/Reports/Projects	
Assignments/Homework	

9. When is work considered late?
10. You might notice above that homework is worth 0% of your grade. This means there is no direct academic consequence for skipping the homework. Why should you still do your nightly homework (what is the HUGE indirect academic consequence of skipping homework)?
11. What type of consequence will be given if a pattern of turning in work late begins to develop?
12. How many school days do you have to make up labs, tests, and quizzes?
13. I miss a day of class:
  - a. How do I determine what was missed?
  - b. Where do I get the notes?
  - c. Where do I get the missed assignments and handouts?
14. What is the consequence if you fail to show up for lunch or after school detention?
15. On which tardy will you receive some type of detention?
16. On which tardy will you get a referred to the administration?
17. Are personal electronics (cell phones, MP3 players, PSP, etc...) allowed in class? Be specific.
18. What is the consequence for being seen with prohibited electronics during class time?
19. Are food and drink (other than water) allowed to be seen during class time? Be specific.
20. Where can you go to view the class calendar; download missed assignments, notes, practice quizzes, and study guides; watch video tutorials and play practice games; and find answer keys to the homework and practice quizzes?