Physics Delcastle Technical High School



January 2023 Volume 1, Issue 1





Inside Room C-200

A NOTE FROM YOUR TEACHER

Dear Students,

Congratulations and Welcome to the second semester of the school year. I trust that you had a good first semester and we are going to have a great and innovative year. I look forward to working with each of you and watching you grow into inspiring young adults. Good Luck and remember that I have an open door policy, if you need help or have any problems, please feel free to share this information with me.

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PHYSICS

Physics is a laboratory science that requires mastery of knowledge and skills related to the relationships between matter and energy, as well as mastery of high-level inquiry/problem-solving skills. Only students interested in pursuing post-secondary education in the areas of science, engineering, computer technology, electronics, or health-related fields should enroll in this course. Successful completion of Physics can be used to complete the State graduation requirement for science and prepares students for further study in the sciences. Prerequisite: Completion of Advanced Math II and Chemistry with grades of "B" or better.

Students are expected to prepare for class or lab each day, take responsibility for their actions, act in a respectful manner, and actively participate in class discussions and labs.

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SUPPLY LIST

- A ½ inch or 1 inch 3 ring binder for class notes, labs, returned papers and class handouts.
- Five dividers for the 3 ring binder.
- Scientific Calculator (graphing not necessary)
- Pen or pencil
- Notebook paper to be placed in the binder.



GRADING

Course grades will be based on the following items and percentages:

Physics Grading Policy

All class grades will be calculated by ESchool on line grading system using the following guideline

Points Summative 60%

Test Quiz

Projects

Formative 40%

Homework

Class work

Labs

Homework

The purpose of homework in this class will generally be to practice concepts

learned in class. Homework assignments will be reviewed in class on the day they are due, therefore, except in the case of excused absence, late homework will not receive credit after 2 days.

Quizzes

Typically a quiz and/or a test are generally given each week.

Tests and Final

All Physics test, and final will be incorporated into the students' summative grade.

Class Mantra: Students are expected to strive to reach their highest potential while actively engaging in the learning process

TEXTBOOK

Textbook: Online Physics from OpenStax, directions to access this textbook will be provided in class.

ON-LINE RESOURCES

- College Board website: apcentral.collegeboard.com – find; course requirements, sample test questions and answers
- Online Simulations: phet.colorado.edu

Online tutorials and simulations:

www.physicsclassroom.co m, www.aplusphysics.com

Online tutorial

www.educator.com, there is a fee to use this resource. There are many more tutorials offered at this location.

LABS

Labs are intended to provide hands-on examples of the material covered in class and to familiarize students with formal laboratory practices and procedures. Students must keep an organized portfolio of all labs and lab reports as this is a requirement to receive college credit in some cases. This portfolio should be kept in a safe place and accessible during the student's college application process, some colleges may need to see this portfolio for student placement. Active participation is part of the lab grade.

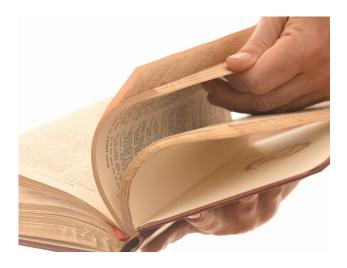
A separate section in the student's binder for labs is recommended, your university may need to see this for future for placement.

A Note about academic honesty:

Most in-class lab work will be done with a group, and students are encouraged to communicate and work within these groups to make sure everyone has the appropriate data and understands how to do the lab. However: unless specifically assigned as a group project, all lab work is expected to be a student's own personal work. Copying or plagiarizing another student's graphs, calculations, and/or written responses is prohibited and will be considered academic dishonesty which will be addressed according to the student handbook. This includes "sharing" excel graphs and/or calculations typed in a word processing program. Each student should be making their own graphs and typing out their own calculations from scratch. The only "copy/pasting" allowed is for raw data.

Part of the lab grade will be student participation. If student is not helping and actively participating in the lab that student's lab grade will be reduced.





APPROXIMATE COURSE OUTLINE

Unit 1: Kinematics (3 weeks)

Vectors

Kinematics in One Dimension

Kinematics in Two Dimensions

Unit 2: Dynamics (3 weeks)

Forces and Newton's Laws of Motion

Unit 3: Circular Motion and Gravitation (2 weeks)

Dynamics of Uniform Circular Motion

Gravitation

Unit 4: Energy and Conservation of Energy 3 weeks)

Work and Energy

Unit 5: Impulse, Momentum, and Conservation of Momentum (2 weeks)

Impulse and Momentum

Unit 6: Simple Harmonic Motion (1 week)

Simple Harmonic Motion

Unit 7: Rotational Motion and Conservation of Angular Momentum (2

weeks)

Rotational Kinematics

Rotational Dynamics

Unit 8: Mechanical Waves and Sound (1 week)

Waves and Sound

The Principle of Linear Superposition and Interference

Unit 9: Electrostatics (1 week)

Electric Forces and Electric Fields

Unit 10: DC Circuits (1 week)

Electric Circuits

FIRE DRILLS

Class must remain together, orderly and quickly exit the building through nearest exit.

Students must locate teacher at meeting location for attendance.

Am I Blue?



Student work will only be accepted when written in pencil, blue or black ink.

Course Pacing

Students are to be actively responsible for their learning and to advocate their needs.



LAB SAFETY

Safety in the science classroom is of the utmost importance. Students will be required to read and sign a safety contract before participating in lab activities. Students that do not turn in this agreement will not be allowed to perform labs. Students not following this contract will be subject to disciplinary action and may be removed from the activity.

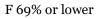
Are you up to P.A.R.?

Show you Professionalism, Positive Attitude and Responsibility by following class and school rules!

This will produce an effective domain condusive to learning. Whether you plan to enroll in higher education or enter the workplace these skills are transferable and beneficial to you!

School Grading Scale

A+ 100-98% C+ 84-83%
A 97-95% C 82-77%
A- 94-93% C- 76-75%
B+ 92-91% D+ 74-73%
B 90-87% D 72-71%
B- 86-85% D- 70%







Classroom Rules

- 1. Be on time and Prepared
- **2.** Consume all food and beverage before entering the classroom.
- 3. Class participation is required!
- 4. School wide rules apply
- No hats or scarves
- No Ipods, Mp3's, etc.
- No electronic games/toys
- No profanity or disrespect
- Your planner must be in your possession daily
- Respect yourself and others
- You may not leave the class until teacher dismisses class

Rule Consequences

- 1. Verbal Warning
- 2. Student-Teacher conference
- 3. Phone call to parent
- 4. Detention
- 5. Behavior contract
- 6. Office Refferral

Classroom Expectations

Participate in class activities – lecture/discussions, labs, group work etc. (no sleeping! – no using phone or laptops unless directed to do so.)

Come to class prepared to actively learn

Advocate for your needs (see me if you need help or if you have been absent)

Be respectful of the classroom and everyone in it.

Follow the rules as set forth in the Enloe student handbook

^{*} If the offense is severe, the teacher reserves the right to refer you to the discipline office immediately

ABSENCE

Late work is strongly discouraged. This class will be very fast paced at times and failure to stay even with assignments can be a detriment to success. Any work received later than 2 days of the due date will not receive credit.

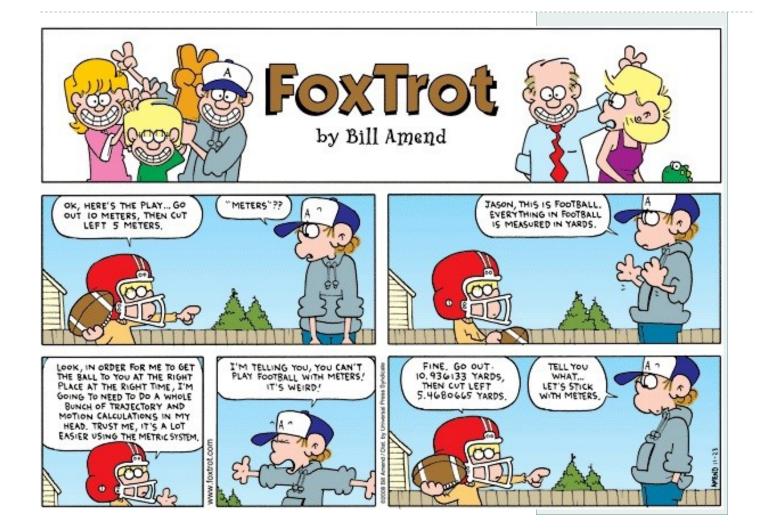
EXTRA HELP



Physics is a challenging subject which builds upon itself. Therefore, students are encouraged to seek outside help from other students, online resources or the instructor if they do not understand a concept covered. Students are also en-



Students are responsible for their own learning and to advocate their needs.



HOW TO BE SUCCESSFUL IN PHYSICS

Study Tips:

- 1. A physics textbook cannot be read the way you would read a novel. Begin by pre-reading the chapter; glance at the section headings, charts and tables in order to organize the material in your mind and stimulate your curiosity. This will make it easier to read the chapter and extract more information from it.
- 2. Be an active, not passive reader, by stopping frequently (at least every section) and consider what you have just read. What is the concept being discussed? Put it in your own words (out loud or by writing it down); by doing so you are reprocessing and using the information presented in the text. Place a few key notes in you notebook; make sure these notes include new terms and illustrative examples.
- 3. Become a note taker and not a note copier! Simply writing down what is written on the board is passive learning (it's a start, but is not as effective as it could be). To get the most out of taking lecture notes, do it in a systematic manner. Before class read the textbook material to be covered in lecture. You will then use class time more efficiently because you will learn more from the lecture, and you will be able to take better notes having been introduced to many of the concepts in the text. During lecture do not attempt to write down every word that is said; that approach is unnecessary. Instead, focus on the major ideas.
- 4. Practice concepts by making your own practice problems which will allow you to rehearse and test yourself on the material.
- 5. Relate new information to other, related information.

Study with a friend! Take turns explaining the material to each other and working together on practice problems. Set up ongoing study groups and meet with other online or at other locations.

Note: while working together on problems is encouraged, each student should work through every problem ON THEIR OWN before handing in an assignment. In fact, a good way to check work is to work through problems separately, then compare answers to see if they deviate. This is also a good way to see a different approach to solving a problem, frequently in physics there are more than one way to solve the problem.

- 7. There is too much new material in a physics class to be able to learn two weeks' worth of material the night before an exam. Review your text material and lecture notes daily so that you can avoid cramming at test time. Daily studying and practice helps problem-solving come naturally.
- 8. Make the most of your time in lab by arriving fully prepared. AP Physics labs are too long and involved to try to perform without having thoroughly read over them the day before.

Do not panic, stick with it.

Statement of Understanding

I HAVE READ MRS. TAYLOR'S NEWSLETTER 'INSIDE ROOM C-200' CONTAINING GRADING CRITERIA, CLASS RULES, REQUIREMENTS AND POLICIES.

F I HAVE ANY QUESTIONS I WILL NOT HESITATE TO CONTACT YOU.	
Print and Sign Student Signature	_

Parent Signature

Phone Number

Best time to call