PHYSICS 11

Term: Sept 2018 – Feb 2019 **Teacher: Mrs. S. Candelaria**
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Access code: D2RGB-22NGB (BK C)
TS8HT-XXF3J (BK D)

Welcome back! My name is Mrs. Candelaria and I am pleased to be your teacher this year. This course is packed full of a mix of challenging algebraic calculations and graphs/diagrams that allow you to "see" the science you are doing. It will be an up and down year for many of us, however, with hard work, all students can succeed. Students will demonstrate an understanding and appreciation of the role of physics in society and develop knowledge, skills and methods employed by physicists. Emphasis will be placed on the mathematics of physics to the physical world.

Work Habit Grade:

A work habit mark of G (fully meets expectations), S (working towards expectations) and N (not meeting expectations) will be assigned each reporting period. This grade will be used by post secondary institution and the passport of Education. For every 5 late assignments, the work habit grade will drop on letter grade.

Letter Grade Standards

Excellent	**A** (86 – 100%)
Very Good	**B** (73 – 85%)
Good	**C+** (67 – 72%)
Satisfactory	**C** (60 – 66%)
Minimally Acceptable	**C-** (50 – 59%)
Incomplete	**I** (Less than 50%)
Fail	**F** (After an "I" has been assigned and acceptable work was not received by the deadline, a Fail will be assigned.

FINAL COURSE GRADE
At the end of the course the term mark will be worth 80% of your mark instead of 100%. The other 20% will come from your final exam mark. Your final will include a multiple choice section AND a written section.

Final Mark Breakdown

TERM GRADE
The term will be divided into the following units based on the time spent in each unit:
Introduction
Kinematics
Forces
2D Vectors
Energy
Electrical Circuits
Waves
Each Unit will be divided into the following sub categories:

Assignments/Homework	10%
Projects/Labs	20%
Quizzes	10%
Chapter Tests/	60%

Curricular Competency

Each unit test will have a lab component where students will be evaluated on the curricular competencies listed below:

Questioning & Predicting; Planning & Conducting; Processing & Analyzing; Evaluation; Application & Innovation; Communication

Refer to the government site for more details on each competency:
https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/curriculum/science/en_science_11_physics_elab.pdf

Homework:

Students can expect science homework everyday. When no work is assigned, the student should review concepts and vocabulary in order to prepare for the next test. Should the student run into difficulty, he/she should make arrangements immediately with their teacher for help. Regular homework checks will be made and the completion of these homework assignments will go towards the work habit.
Assignments that are for marks will be identified in class and written on the board as well as posted on my website: www.schoology.com. **No late marks are taken off for late assignments but the assignments will be marked with higher expectations** (this means harder questions are marked / the entire assignment is marked)**. The work habit grade will drop one letter grade for every 5 late assigments.**
"In progress" or "Incomplete" reports will usually be sent at interim and report card time to students at risk of failing a course. The "I" reports will have an action plan in place for students to

complete outstanding work by a certain date. Please read these reports and make sure the plan is being followed. Should parents/students have any questions or concerns prior to the interim, please contact the teacher via email.

It is the student's responsibility to find out what they missed during an absence and to get caught up. Assignments make up the bulk of the study material needed for tests, therefore, students should always try to answer the questions and submit them on time. For students who are absent, it is the student's responsibility to find out about and make up all missed assignments at the earliest possible date! Mrs. Candelaria will set aside any handouts/worksheets you miss in a folder labeled "Physics 11". Once the assignment has been handed back, the harder questions will be marked on excused absent assignment.

Test:

Tests make up a large part of your Physics mark. In order to prepare for these tests it is important that you attend class, complete all homework, write all quizzes, do all reviews and seek extra help when needed. Students in senior level classes should expect that there will be NO re-writes! For students who maintain a G work habit (punctual assignments, no missing assignments, regular attendance, participation during class time), the lowest test score may be omitted at the end of the semester.

If a student misses a class when a test is given, regardless of the reason, it is at the teacher's discretion whether the student will be allowed to write at another time convenient for the teacher. If the absence is unexcused, the student will not make up the test. In the case of a test missed due to excused absence, the parent must phone the teacher directly to discuss the reason for the absence; a hand-written note or email will not be sufficient. Students are expected to write the test on the early Fridays that are identified in the agenda. Once the test has been handed back to the class, students will not be able to write the test.

In the case of planned and or extended absence (e.g., vacation or wedding), students must communicate with the teacher as early in the semester as possible in order to arrange for alternate test dates. Keep in mind that teachers may choose not to offer alternate test dates.

Academic Misconduct Policy:

Academic dishonesty is un unfair and discouraging to the majority of students who pursue their studies honestly. Students engaging in any of the following behaviours will be considered cheating:

1. Using any type of device/books or cheat sheets. Cell phones and devices will be handed in to the teacher before an assessment has taken place and bags/jackets will be put at the back of the classroom. Students will not have access to the washroom or the bags/cell phones until all students are done the test.
2. Communicating with other students for any reason and in any manner during the exam.
3. Exposing written papers to the view of other students. The plea of accident or forgetfulness shall not be received
4. Continuing to write after the instruction to stop writing has been given.
5. Taking any examination material from the examination room at any time without permission of the course teacher
6. Plagiarism (presenting the work of another person as your own or allowing another person to present your work as their own).

Both cheating and plagiarism are dishonest, unethical and violate the value of learning and the integrity of our school community. As such, students caught cheating will be open to disciplinary action including a referral to the office as well as suspension for repeat offences. Students will not be given credit for any assessment written under these circumstances. In addition, students *may* or *may not* be offered a second chance to complete the assessment task in which cheating took place.

Classroom Expectations:

Respect yourself and others
Arrive on time with all supplies
(As mentioned below).
Cooperate. Be kind.
Work quietly in your assigned seat.
No gum but food is allowed if disposed of properly and eaten quietly

Consequences:

1) Warning
2) Moved to alternate setting (isolated desk, sit in hall, etc.)
3) Detention
4) Phone call/email/meeting with parents
5) Administration / referral to office

Required Supplies:

In order to succeed, EVERY DAY I will need you to bring:

- Binder with 6 dividers (one for each unit)
- Agenda book
- **Scientific** calculator
- Loose leaf paper
- Protractor
- Graph paper
- Pens (blue/**black** and red or colored pens)
- Pencil and eraser
- Ruler with centimetre designations
- Physics Textbook **with cover (for those who request a text book and completed the safety test)**

****Students must return the same textbook they are assigned or they will be charged $132 for it! Students must sign up for schoology in order to receive a textbook.**

Students will not be allowed to go to their locker to get forgotten basic supplies, homework, etc. Extra supplies are available in the basket for students to borrow before the start of class. Sitting without supplies will count towards the work habit.

Attendance:

We strongly discourage removing students from classes for an extended holiday as this puts the student at risk of failing their courses. Students will have to write their missed exams on the day chosen by the teacher, not the student.

Extra Help:

I will be available for extra help after school or by appointment. Other teachers in the Science Department will be available to you should I not be there when you need help. Peer tutors and teachers will meet with students during Homework Club every Wednesday in the library. Attendance is taken during the session and will be used towards the work habit mark.

Safety:

Safety is of paramount concern in the science lab. All students are required to achieve 80% or higher on a safety test and submit all completed safety paperwork (i.e. safety contract and contact lens letter) prior to doing any labs. Failure to behave in a safe manner or disobeying lab safety rules at anytime throughout the year will revoke the student's lab privileges. Make-up safety assignments and a change in attitude are usually required for a student to resume doing lab work.

Late to Class:

You are expected to come to class on time and prepared to learn. Being on time means being in your assigned seat with your binder open **WHEN** the bell rings. The door will be closed when the second bell rings. Unexcused lates to class will result in a lower work habit mark, discussion/detention/referral with the teacher and/or phone call/email home.

When you arrive late and the door is locked, you need to wait outside quietly (for up to 10 minutes) until the teacher lets you in. Once inside the class, you will sign your name and state a reason on a form that will be posted by the door.

Leaving the Classroom:

Students are expected to go to the washroom before class. However, emergencies may occur and for this students must first ask permission and sign out. One student is allowed outside at a time. Students will not be allowed to leave the classroom during the first and last 10 minutes of class. Students that need to leave the school for an appointment, etc. need parental permission (note or phone call) and must **sign out at the office**.

Please Show teacher once completed

I have read and understand the above science department policies. Name: _____

Student signature: _____ Date: _____

Parent signature: _____ Parent Email: _____

Course outline:

1. Introduction (5%)
    a. Metric system and Systeme Internationale (SI) d'Unites
    b. Converting units
    c. Scientific notation review
    d. Graphing data and determining relationships
    e. Significant figures
    f. Manipulating equations
2. Kinematics (30%)
    a. Vectors and scalars – displacement vs. distance, velocity vs. speed
    b. Displacement-time graphs
    c. Velocity-time graphs
    d. Positive and negative acceleration
    e. Big 3 kinematics equations
    f. Projectile motion – vertical & horizontal launch
    g. addition, subtraction, right angle trigonometry
3. Dynamics (20%)
    a. Newton's 3 Laws
    b. Forces and free body diagrams
    c. Force of gravity and weight
    d. Force of friction
    e. Elastic forces and Hooke's Law
    f. Atwood's machines
4. Energy (15%)
    a. Work
    b. Potential energy
    c. Kinetic energy
    d. Conservation of energy
    e. Power
    f. Efficiency
    g. Thermal energy and specific heat capacity
5. Electrical Circuits (20%)
    a. Direct current – switches, resistors
    b. Ohm's law & resistance
    c. Power & efficiency
    d. Kirchhoff's Law
    e. terminal voltage vs. electromotive force
6. Wave motion (10%)
    a. Wave properties – type, amplitude, period, frequency (harmonics & beat), speed etc.
    b. Behaviour – reflection, refraction, diffraction, interference, superposition, standing waves, Snell's Law
    c. Sound – pitch, volume, resonance, doppler