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| **AP PHYSICS 1** | **Mr. Scott Lawson Room: 205****Email:** **slawson@sd45.bc.ca****Website:www.mrlawsonscience.weebly.com/** |
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**What will we be learning?**

AP Physics 1 covers material completed in Physics 11, Physics 12 as well as some concepts from first year university physics curriculum.  The course is taught at an accelerated pace and enriched with inquiry based activities. This course is designed to extend ideas typically covered in Physics 11 and 12 and introduce new and more challenging topics such as Torque and Electrostatics. This is a challenging but rewarding course for students who are interested in an enrichment opportunity. Because of the heavy content workload students are required to do a significant portion of their work outside of class time.

***Course Organization:***

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| **UNIT** | **TOPIC** | **UNIT** | **TOPIC** |
| **1** | Kinematics in 1D | **6** | Torque and Rotational Motion (Angular Velocity/Acceleration) |
| **2** | Vectors and Kinematics (2D) | **7** | Mechanical Waves and Sound + Simple Harmonic Motion |
| **3** | Dynamics | **8** | Introduction to Static Electricity + Electrical Energy (DC Circuits) |
| **4** | Circular Motion and Gravitation | **9** | Review for AP Exam  |
| **5** | Momentum and Energy |  |  |

**What are the Expectations?**

You are expected to take an ***active* role** in this class. This means thinking, asking questions, contributing to class discussions, making connections, planning for improvement, and taking ownership over your own learning. You are also expected to collaborate with your peers in order to help everyone achieve their learning goals. This will come in the form of peer feedback and group discussions.

**Each student is expected to**:

1) Come to class, on time, every time, prepared to work.

2) Act safely and maturely in class

3) Respect the rights of other students to obtain an education, and the rights of the teacher to do their job

With the help of Mr. Lawson and your peers, you will develop the ability to understand what you have already learned, determine what you have yet to learn, and decide how you can best improve on your achievement.

Throughout the course, you should always be able to answer the following questions:

1. **What am I learning?**
2. **How’s it going?**
3. **Where to next?**
4. **Why does it matter?**

***AP Physics 1 is a demanding course***. You should be prepared to do homework every day to keep up with labs, assignments and readings. Daily review of course material at home is essential for success. You need to bring all necessary classroom supplies and textbook to class every day. It may be helpful to get contact information of your colleagues in class to help with your learning and review.

*Contact Info of a Student in Class:*

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| ***Name*** | ***Phone*** | ***Email*** |
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***What materials are needed for each class?***

1. ***A computer or tablet, note this mandatory as paper copies of labs and worksheets will not be handed out this year, you will also be required to download and complete readings from my website to “pre-load” before class***
2. 3-ring binder – with dividers
3. Agenda book to record homework and due dates and exam dates
4. Pens (various colours), pencils, ruler, and a **calculator** (Physics is a MATH BASED COURSE)
5. Your creative and inquisitive mind

**Absences:** All absences from the class must be excused by a phone call to the office **on/before** the day you are absent (call 981-1234 ext. 1300 before 8:25 a.m.). **YOU** are responsible for getting peer notes, handouts, due dates and catching up with the material missed. Please DO NOT ask the following question: “*I was away last class what did I miss?”*
 ***Work Habits*:** In order to achieve a Work Habits level of “G,” you must be *consistently* on time, do all assignments and be productive in class. ***Be aware that you do NOT automatically deserve a “G”; you must earn it by demonstrating commitment and engagement both inside and outside of class time.***

**Deadlines:** It is expected that you are ready to hand in your completed assignments by the due date ***at the beginning of class***. **Late assignments will not be considered exemplary**. **Assignments not handed by the time assignments are marked will not be considered exemplary OR accomplished**. In extenuating circumstances, any extension of deadline must be discussed with Mr. Lawson ***well in advance of the due date***.

***Student Logs*:** Each class you will be given a quiz on the material from the previous day. ***It will be your responsibility to retake the quiz if you are unsuccessful and record your progress on your student logs***. These student logs are due the day of the Unit Test and will not be accepted after. ***If the Unit Quiz for a unit is not written, student logs will not count for that unit.***

***Exam Policy*:** Unit tests are weighted heavily; however there will be **NO** rewrites. At the end of each term we will have a summary exam that ***will*** be used to replace your lowest test score for the term. You can ONLY write this exam if you have completed all Unit Tests during the term and all assignments/worksheets from the term.

**Evaluation:** As stated earlier, you will be expected to take an active role and be responsible for your own learning. Every unit will be organized by an overall learning goal and 2-5 specific concepts, which will be formally assessed using a variety of assignments, labs, daily quizzes, and tests. We will assess all concepts, assignments and labs using performance-based rubrics that have clear criteria.  **Extra help?** (W205/W214)

Please check Mr. Lawson’s FIT schedule or set up an appointment (SLawson@sd45.bc.ca)

**Anything Else?**

If you have any questions or concerns, please do not hesitate to talk to me or email me ~ slawson@sd45.bc.ca

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| **Physics 11 and AP Physics 1: Marks Explanation** |
| Unit Tests Unit Quizzes/Student LogAssignments/Labs/Projects | 60%15%25% | Term’s one will be worth 20% of your course mark, while terms two and three will be worth 30% of your course mark respectively. At the end of term three students will write a mock AP Exam worth 20% of their final mark. Students will also be given a work habits grade.  |

**AP Physics – The Facts**

What Is It?

AP Physics 1 is an enriched curriculum that covers both the regular Physics 11 and 12 curriculum and some first year university-level Physics.

*Having said this, the course will be taught quite differently than your Physics 11 class. In AP you will be expected to complete a significant portion of the course ON YOUR OWN before each class. Please be prepared for each class so you can take part in all activities during class.*

Who Should Take This Course?

This class is intended for students who are planning on going into a post-secondary science or engineering program.

How Much Work Is It?

It is important to remember that Physics 11 is a big step up from Science 10; AP Physics 1 will be more so. Obviously there will be more work required, but we will do our best to make it a worthwhile and enriching experience.

What Do I Have To Do To Be Ready?

Time is the major constraint of the course and therefore students must complete the summer preview assignments posted on the course website. This will allow us to complete the course before the AP Exam in early May. In order to make up for lost time we will also be meeting every Thursday morning at 7:15 am for an exam class. Each student will be required to prepare yourself by learning the material BEFORE you come to class. ***That way class time can be used for troubleshooting and enrichment!***

Why Would I Do This To Myself?

Because you lie awake at night pondering the deeper meaning of a universe whose very nature taunts your limited knowledge with its vastness!

Ok so also, you do it because it will qualify you to write the AP Physics 1 exam in May. Students who receive a 4 or 5 on this exam can receive credit for First Year University. Those that opt not to write the exam will enter first year physics with a much richer understanding of the material.

***I look forward to working with you in the upcoming year!***