



Rockridge Secondary School  
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### Mission Statement

Students will demonstrate intellectual, social, aesthetic and physical excellence in a setting that reflects diversity, fosters cooperation, mutual respect, individual worth, and prepares students to become responsible members of society.

## Physics 12

Mr. Scott Lawson      Room: W205  
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### What will we be learning?

Physics 12 builds and extends on the concepts learned in Physics 11. Kinematics (motion), Dynamics (think Newton!), Momentum and Energy are explored from a two dimensional standpoint. While the second half of the course focuses on electrifying and magnetic nature of Electrostatics, Circuits and Magnetism. Along the way we will explore such topics as how lights light up, your TV projects, and cell phones are taking over the world!

### Course Organization:

UNIT	TOPIC	UNIT	TOPIC
1	Vectors and Kinematics	6	Electrostatics
2	Dynamics	7	Electric Circuits
3	Equilibrium	8	Electromagnetism
4	Circular Motion and Gravitation	9	Review
5	Work, Energy and Power, and Momentum		

### 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?

**Physics 12 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.

### 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**
2. 3-ring binder – with dividers
3. 80-page notebook for **quizzes** note: this will be handed in with your quiz log at the end of each unit
4. Agenda book to record homework and due dates and exam dates
5. Pens (various colours), pencils, ruler, and a **calculator** (Physics is a MATH BASED COURSE)

**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.**

**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?*”

**Homework Policy:** It is your responsibility to learn the subject matter and complete the necessary homework. You will be given ample practice problems. Please keep them organized in your binder and bring them in for extra help.

**Deadlines:** It is expected that you are ready to hand in your completed assignments by the due date **at the beginning of class**. In extenuating circumstances, any extension of deadline must be discussed with Mr. Lawson well in advance of the due date.

Note: **YOU ARE EXPECTED TO COMPLETE EVERY ASSIGNMENT WHETHER YOU ARE HERE OR NOT!**

**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.

**Labs and Projects:** Each unit will contain a selection of labs/projects. All lab quizzes are to be written in pen and handed at the end of class. All regular labs should be taken home and completed on a computer. Expectations for write-ups will be explained for each lab. **All labs are due on the day of the unit test and will not be accepted after.**

**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. **There is an optional school-based final exam in June worth 25% of the year. This is exam is for students who feel they haven’t sufficiently demonstrated their understand of the learning outcomes in the course.**

### Extra help?

Friday Morning 7:45-8:15 AM, Thursday’s at Lunch W205 or by appointment.

### Anything Else?

If you have any questions or concerns, please do not hesitate to talk to me or email me ~ [slawson@sd45.bc.ca](mailto:slawson@sd45.bc.ca)

### Physics 12: Marks Explanation

Unit Tests	60%	Term one will be worth 20% of your course mark, while term two and three will each be worth 40% of your course mark. Students will also be given a work habits grade. Please see the Rockridge work habits rubric for more details.
Unit Quizzes/Student Log	15%	
Assignments/Labs/Projects	25%	
<b>FINAL MARK</b>		
Course Mark	80%	
Final Exam (Optional)	20%	