

**Course outline, guidelines and Expectations**

The following guidelines are in place to allow easy cooperation between students and teacher and are intended to facilitate learning and mutual respect among all members of the class. Please follow them carefully to maximize our time together in the classroom. You are expected to come to every class prepared to work and have all the necessary materials necessary for that class.

1. All tests must be written in order to receive a grade for that section of work. As far as possible answer keys from homework and worksheets will be posted. These may never be removed by a student and are there for you to check work already completed.
2. Missed work will receive a zero (0 %). If work is missed due to a legitimate emergency please see me as soon as you return. Delays will result in a loss of marks. Drop dead date is week post the due date.
3. The majority of your marks in this course will come from tests, labs and other assignments. Each learning goal is assigned a percentage of your grade and the final grade will be a combination of these marks. Homework assignments are a required part of the course and may be checked without warning. Success in this course will be dependent on the amount of practice done. Other skills such as organization, team work and initiative also play a role and will be monitored.
4. Please note that there will be a cross grade exam in this course and the exam is worth 20% of your course mark. This exam must be written in order to complete the course. Labs and other class work must be completed in order to receive a passing grade.
5. Tardiness is not acceptable and should be kept to a minimum in order to avoid consequences. Absences and lates will be recorded and reported on. While it is understood that from time to time there will be unavoidable lates, repeat offenders will face consequences which may include detention periods, phone calls to parents/guardians and even suspensions.
6. There is a zero tolerance policy on cheating. You will automatically receive a 0 for the piece of work and further consequences will be assessed.
7. During testing students should be in possession of a pencil, black or blue pen, an eraser, a clean data sheet and a scientific calculator.

Electronic dictionaries may not be used, however, should one be required, you may use a paper dictionary.

8. Please observe all school rules as laid out in your agenda. These will be strictly enforced.
9. Cell phones and pagers will be turned off for the full duration of the class. Digital cameras, MP3 players and cell phones are absolutely not permitted to be visible in the class for any reason at all.
10. Textbooks remain the property of H.J. Cambie Secondary and should be kept in good condition. These should be brought to class for every session as well as all necessary classroom equipment.
11. Students will not be permitted to leave the class to go to lockers or washroom for the first and last 20 minutes.
12. This is a rigorous course and requires the student to keep up to date at all times. I will make myself available for extra help with sufficient warning. Please don't hesitate to approach me with questions or problems; I will make every effort to meet with you. The day of the test is not enough warning!
13. I will make every effort to post answer keys notes and other physics related work on my web site at [www.cambierobotics.com](http://www.cambierobotics.com).

Good luck, study hard and persevere always.

## **Prescribed Learning Outcomes: Physics 11**

*It is expected that students will:*

### **Skills, Methods, and Nature of Physics (5%)**

A1 describe the nature of physics

A2 apply the skills and methods of physics

### **Wave Motion and Geometrical Optics (18%)**

B1 analyse the behaviour of light and other waves under various conditions, with reference to the properties of waves and using the universal wave equation

B2 use ray diagrams to analyse situations in which light reflects from plane and curved mirrors

B3 analyse situations in which light is refracted

**Forces (15%)**

- D1 solve problems involving the force of gravity
- D2 analyse situations involving the force due to friction
- D3 apply Hooke's law to the deformation of materials

**Newton's Laws (10%)**

- E1 solve problems that involve application of Newton's laws of motion in one dimension

**Momentum (10%)**

- F1 apply the concept of momentum in one dimension

**Energy (16%)**

- G1 perform calculations involving work, force, and displacement
- G2 solve problems involving different forms of energy
- G3 analyse the relationship between work and energy, with reference to the law of conservation of energy
- G4 solve problems involving power and efficiency

**Special Relativity (4%)**

- H1 explain the fundamental principles of special relativity

**Nuclear Fission and Fusion (4%)**

- I1 analyse nuclear processes