



Dr. E. P. Scarlett High School Physics 30



Course	
Pre-Requisites	Minimum 50% in Physics 20 Successful completion of Math 20-I highly recommended
Practice Workbook	http://structuredindependentlearning.com/physics30
Supplies	Binder, loose-leaf paper, graph paper, scientific calculator, pens, pencil, eraser, transparent ruler and protractor

Teacher(s)	E-mail	Room
Jeff Buhler	jebuhler@cbe.ab.ca	143

TEACHER COMMUNICATION: Teachers will respond to e-mail within two business days. E-mail is the best way to contact teachers.

COURSE DESCRIPTION:

In Physics 30, students expand and extend their understanding from Physics 20. The main emphasis of the course is the nature of matter and energy and the interactions between them. The course builds a foundation for future study for many science and engineering post-secondary fields.

LEARNER OUTCOMES:

- **Attitudes** - Students will be encouraged to develop attitudes that support the responsible acquisition of application of scientific and technological knowledge to the mutual benefit of self, society and the environment - interest in Biology, mutual respect, scientific inquiry, collaboration, stewardship & safety
- **Knowledge** - Students will construct knowledge and understandings of concepts in life science, and apply these understandings to interpret, integrate and extend their knowledge
- **Science, Technology and Society (STS)** - Students will develop an understanding of the nature of science and technology, the relationships between science and technology and the social and environmental contexts of science and technology
- **Skills** - Students will develop the skills required for scientific and technological inquiry, for solving problems, for communicating scientific ideas and results, for working collaboratively and for making informed decisions.
- Alberta Learning: <https://www.alberta.ca/programs-of-study.aspx>

EXTRA SUPPORT:

- Students should make use of class time to ask for help
- Teachers are available in their classrooms at 8:30am (Mon – Thurs) for extra help
- Science help room is available, talk to your teacher for more details
- If additional support is still needed, students should make appointments with teachers.

LEARNER ASSESSMENT:

- Learning is an ongoing process. Teachers will use a variety of instructional tools and assessments to help students understand the Program of Study outcomes.
- Teachers will post grades in Powerschool which is available for students and parents to view

	Unit	Weighting	Workbook Lessons
A	Momentum and Impulse	10.5	L01-04
B	Forces and Fields	21	L13-24
C	Electromagnetic Radiation	21	L05-12
D	Atomic Physics	17.5	L25-38
	Diploma Exam	30	L01-38

CLASS EXPECTATIONS:

- Regular attendance and a readiness to actively engage with the course content
- This is an in-person course. D2L is used for online support and may include instructions and resources.
- Learning is a process which builds on prior knowledge, as a result effective study habits are required.
- When learning complex ideas, sustained motivation and cognitive engagement are required to maintain considerable mental effort. As a result, cell phone use should be minimal and appropriate for the school environment
- Academic Integrity - a commitment to the regular and honest completion of work (ie. no cheating or copying from peers or the internet). Students and parents are required to be familiar with academic integrity policies found on the school website (<https://school.cbe.ab.ca/school/DrEPScarlett/teaching-learning/program-approach/academic-integrity/Pages/default.aspx>).
- Students are required to complete all assessments, even when absent.
- Reasons for unavoidable absences should be communicated to teachers. It is the student's responsibility to arrange with their teacher, to make up missed assessments

SAFETY:

- Students will follow all Laboratory Safety rules each time they are in a science classroom
- Laboratory safety rules are posted in classrooms and in D2L shells
- Students will complete a Laboratory Safety course in D2L prior to conducting any labs.

LABORTORY OPPORTUNITIES:

- Students will have the opportunity to participate in the following labs:
 - Conservation of Momentum
 - Electrostatics
 - Optical Systems
- Additional labs may be included if resources and time allow

POSSIBLE ADDITIONAL RESOURCES:

- Khan Academy, <https://phet.colorado.edu/>, <https://www.physicsclassroom.com/>,
- YouTube: Ted talks, NOVA, Veritassium, Smarter Every Day