



In order to pass the course, students must show a basic understanding of the course material at the level covered in the lectures and in the lab. This is achieved by attaining a final grade of at least 60%, calculated according to the evaluation scheme above. **Note: course work not submitted by the due date may be penalized at the teacher's discretion.**

#### Reference materials

1. Your teacher will tell you which **one of the two textbooks** will be used in your section and whether you need an access code or not for the online homework system.

**Serway custom package for Dawson College NYB** containing excerpts from *Physics for Scientists and Engineers (with Enhanced WebAssign)* by Serway & Jewett, 9th edition;  
or

**Knight custom package for Dawson College NYB, 2nd edition**, containing excerpts from *Physics for Scientists and Engineers (with Mastering Physics)* by Knight, 4th edition.

The custom packages are available at the bookstore and include a semester-long access code for the online homework system. Used textbook generally do not include an access code.

2. **Library copies:** Copies of the textbook are available on reserve in the Dawson Library.

#### Teaching methods

The material will be presented using a mix of active learning activities, lectures, in-class problem solving, laboratory experiments and demonstrations. Laboratory periods will be used for experiments as well as class tests and lectures.

#### Attendance & participation

Although class attendance is not compulsory, students should make every effort to attend all classes. In the event that a class is missed, the student is responsible for all material covered or assigned during that class. **Attendance during laboratory experiments and for class tests is however compulsory.** In the rare event that a student for valid reason (*e.g.* due to an intensive course, illness, *etc.*) is or anticipates to be absent during a laboratory experiment or for a class test, the student **must**, where possible, inform the teacher and provide the necessary documents before the absence or, at the latest, on the day of their return. If the absence is excused, students will have the opportunity to complete the assessment.

All other assessments (readings, quizzes, lab activities, *etc.*

**Intensive course contents**

If a student is attending an intensive course, the student must inform the teacher, within the first two weeks of class, of the specific dates of any anticipated absences.

**Policy on religious observance**

Students who intend to observe religious holidays must inform their teachers, in writing, within the first two weeks of the semester as prescribed in the ISEP Policy on Religious Observances. (ISEP, Section IV D). This includes any religious holidays that occur during the final exam period. Please refer to the academic calendar for the exact dates. Forms for this purpose are available from your teacher. Your teacher will inform you of any modifications to planned course activities resulting from the teacher's own religious commitments.

**Course content**

The material to be covered is contained in the following chapters and sections of **Physics for Scientists and Engineers by Serway & Jewett, 9th edition.**

Weeks	Topics	Chapter & Section
1{3	Electric fields	Ch.23: 1{7
3{4	Gauss's law	Ch.24: 1{4
4{6	Electric potential	Ch.25: 1{6 (7 & 8 optional)
7{8	Capacitance and dielectrics	Ch.26: 1{4 (5, 6 & 7 optional)
8{9	Current and resistance	Ch.27: 1, 2, 4{6 (3 optional)
9{10	Direct-current circuits	Ch.28: 1{5
11{12	Magnetic fields	Ch.29: 1{4 (5 & 6 optional)
12{13	Sources of the magnetic field	Ch.30: 1{5 (6 optional)
13{14	Faraday's law	Ch.31: 1{5 (6 optional)
15	Inductance	Ch.32: 1, 2 (3{5 optional)
	Alternating-current circuits (time permitting)	Ch.33: 1{9

The material to be covered is contained in the following chapters and sections of **Physics for Scientists and Engineers by Knight, 4th edition.**

Weeks	Topics	Chapter & Section
1	Electric charges and forces	Ch.22: 1{5
2{4	The electric field	Ch.23: 1{6 (7 optional)
5	Gauss' law	Ch.24: 1{6
6{7	The electric potential	Ch.25: 1, 2, 4{7 (3 optional)
7{8	Potential and field	Ch.26: 1{6 (7 optional)
9	Current and resistance	Ch.27: 1{5
10{11	Fundamentals of circuits	Ch.28: 1{9
12{14	The magnetic field	Ch.29: 1{8 (9 & 10 optional)
15	Electromagnetic induction	Ch.30: 1{5 (6{8 optional)
	AC circuits (time permitting)	Ch.32

**Comprehensive examination**

Second-year students can opt to complete the independent study portion of their comprehensive examination in this course. (This option is not available in continuing education courses.) The project will be evaluated on pass or fail basis independently from the course grade.