Lesson Plan - SPH3U
Unit – Electricity and Magnetism
Topic – Introduction and General Review
Day # 1

Curriculum Expectation(s) and Learning Goal(s) for the Lesson

a) Expectations: (List 1-3 specific expectations from the Ontario Curriculum. Be realistic about how much you can accomplish in one lesson.)

- No specific expectations will be covered today, instead it will be spent reviewing prior knowledge that is needed to succeed in this unit
- The overall expectations will be addressed and conveyed to the students.

b) Learning Goal(s): (In your own words, what do you want the students to have learned by the end of the lesson? How will you know what they have learned the information?)

By the end of this course, students will:
- Analyze the social, economic, and environmental impact of electrical energy production and technologies related to electromagnetism, and propose ways to improve the sustainability of electrical energy production;
- Investigate, in qualitative and quantitative terms, magnetic fields and electric circuits, and solve related problems;
- Demonstrate an understanding of the properties of magnetic fields, the principles of current and electron flow, and the operation of selected technologies that use these properties and principles to produce and transmit electrical energy.

Learning Environment and Materials (Describe the set up of the classroom, safety considerations, individual and/or group work considerations, facilitating smooth and safe transitions)

Desks are set up in columns and in each column has 2 desks side by side. At the front there is a projector with white board, SMART board on the side of the class. Lab desks surround the columns of desks. J.B. is visually impaired and is seated closer to the front and there is a seating plan to enforce this and others that do not focus well with specific individuals. The seating plan is mostly alphabetical.

Overview of the Lesson (Write the information that you will provide to the students as the intro to the lesson. This may be written on chart paper, white/blackboard, Smart board. This information will inform the students/EAs about what to expect during the lesson.)

Intro:
- What is electricity? What is magnetism?
- Technological applications in everyday life?

Body:
- Lecture/discussion style
  - Electric circuits (energy source, electrical load, switch, conducting wire), Ammeters, Voltmeters, Series/Parallel circuit
  - Ohm’s Law
  - Properties of magnets (attraction/repulsion, molecular set-up)

Consolidation:
- As each review topic is discussed, questions will be posed to the class that each student must complete

Assessment/Evaluation:
- Homework questions to be assigned (potentially finished in remaining class time)
  - Taken up tomorrow in class