### Physics 1113 and 1030: Fall 2019

# Introductory Applied Physics I Physics Essentials I

**Instructor:** Dr. M. Gallagher

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office hours: Mon. & Wed. 1:30 to 3:00 PM (in either CB4031 or CB2015).

Class Times: Lectures: MWF 12:30 PM to 1:30 PM, in AT2001.

Lab Sections: **CB2010** (see attached schedule).

F1-Thurs. 8:30 AM to 11:30AM

F2-Thurs. 2:30 to 5:30PM F3-Thurs. 7:00 to 10:00PM

### **Textbook:** College Physics by *OpenStax*.

- College Physics is an open textbook licensed under an open copyright license, and made freely available to students.
- Two options:
  - *i)* Download an electronic version of the book at <a href="https://openstax.org/details/books/college-physics">https://openstax.org/details/books/college-physics</a>.
  - ii) Purchase low cost print version of the book from campus bookstore.

**Topics:** Chapters 1 through 10 and Chapters 16 and 17 of the textbook.

# **Marking Scheme:**

Midterm Test I	Monday. September. 30th	15%
Midterm Test II	Monday. November. 4th	15%
Pre-Lectures (Sapling Plus)		7%
Assignments (Sapling Plus)		15%
Final Examination		33%

### **Online Course Components:**

### 1. D2L course site

- Lecture notes will be posted on the course site.
- Access to the course site through "myCourselink" using Lakehead email account.

### 2. Sapling Plus (Macmillan learning)

- Students are required to purchase a license (available at the Lakehead Bookstore).
- To access site follow *SaplingPlus* link on D2L course site.
- Sapling Plus includes two distinct components:

### i) Prelecture and Bridge Assignments (7% of final mark):

- "Multimedia Learning Modules"
- Students asked to complete modules prior to most Mon. and Wed. Lectures.

### ii) Assignments (15% of final mark):

- Weekly (approximately) assignments.
- Assignments will (normally) be made accessible *Wednesday at 4:00PM*, and will be due at 4:00PM the following *Wednesday*.

#### Labs:

- 1. The Lab Manual: *Experimental Investigations in Introductory Physics* (available on the *D2L* site).
- 2. Laboratory attendance is **COMPULSORY** and the assigned lab work must be satisfactorily completed before credit in Physics 1113/1030 will be given.
  - If the labs are not completed to the satisfaction of the instructor you will receive a course mark no higher than 49I (I is for incomplete).
- 3. To save yourself time you should read over the lab manual before each lab.
- 4. You must buy a **bound notebook** that has graph and lined paper. No data may be recorded on loose-leaf paper.
- 5. Lab books are due on the Monday following your lab period (at the same time of day as the end of your lab period).
- 6. First lab: Lab #2 in the manual "Graphical Analysis".

### **Laboratory Schedule**

Week	Date	
1	Sept. 5th	No Lab
2	Sept. 12 <sup>th</sup>	Lab #2: Graphical Analysis
3	Sept. 19th	No Lab
4	Sept. 26th	Lab #3: Acceleration
5	Oct. 3rd	No Lab
6	Oct. 10th	Lab #5: The Pendulum
7	Oct. 17 <sup>th</sup>	No Lab (Study Week)
8	Oct. 24th	No Lab
9	Oct. 31st	Lab #6: Momentum, Energy. &
10	Nov. 7 <sup>th</sup>	No Lab
11	Nov. 14th	Lab #7: Moment of Inertia
12	Nov. 21st	No Lab
13	Nov. 28th	Make up week

#### **Accommodations:**

Lakehead University is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please visit: <a href="http://studentaccessibility.lakeheadu.ca">http://studentaccessibility.lakeheadu.ca</a>