

Introduction Exercises

TRENT UNIVERSITY: PHYSICS 2091H

NAME:

LAB PARTNER(S):

SECTION:

LAB GROUP:

TA:

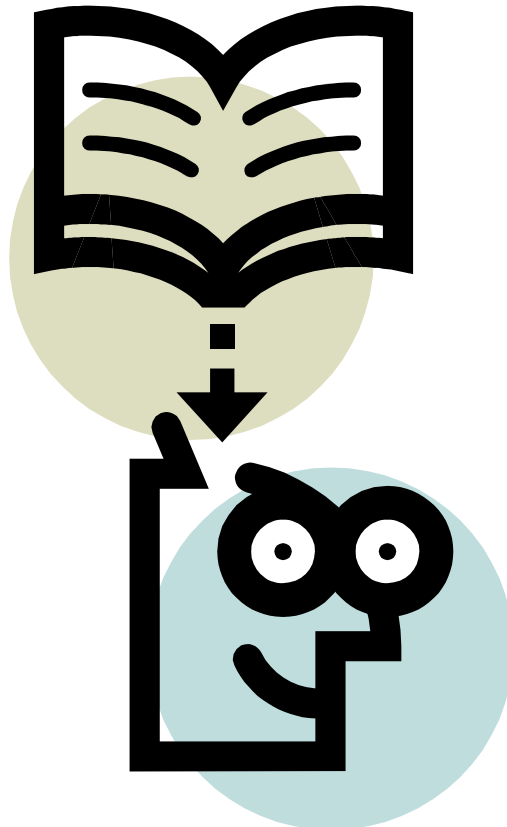
DATE:

If needed by your TA, please record:

E-MAIL ADDRESS:

@TRENTU.CA

ADDITIONAL INFORMATION:



Introduction

Equipment List

I1.1:

Per class:

Per group: whiteboard, pens, eraser

I1.2:

Per class: Something on a string, like a metal ball, something to use as a pin (marker pen), stand and clamp

Per group:

Activity I.1: Who Are You?

(Activity)

1. **WHAT DO YOU THINK?** Write down three or four bits of information about yourself... anything you think might interest others.
2. **WHAT DOES YOUR GROUP THINK?** Share your list with your group for a few minutes. Meet some classmates! Record any interesting information that gets shared.
3. **WHAT DO YOU THINK?** Write down three or four things that you expect or hope to get from Physics 2091H.
4. **WHAT DOES YOUR GROUP THINK?** Share your list with your group for a few minutes. Are your items the same as theirs?
5. **WHAT DOES YOUR LAB CLASS THINK?** Share your group's list with the class. Are your items the same as theirs?

6. **WHAT DOES YOUR INSTRUCTOR'S THINK?** Does you instructor's list have anything in common with anything previously mentioned? Are there any new items?

Focus on Science I1: Physics Course Information

This course is largely based upon and influenced by the Text/Workbook: "*Powerful Ideas in Physical Science*", or PIPS, produced by the American Association of Physics Teachers (AAPT). The various course handouts and materials will cost each student \$20, collected in one of the first few meetings of the course.

PIPS presents activities that will allow you to clarify things that you already know, reveal differences among the class, get you to predict outcomes, lead you to experiment and discover, document what you have discovered, and throughout these activities examine scientific learning processes.

We will be examining some aspects of: Light and Colour; Electricity; Motion; Pulleys, Levers and Gears.

Other aspects of this course include: journals; Ontario's grade 1-8 Science Curriculum; how do we (and others) learn most effectively; electronic tools such as e-mail and the web as tools for communication and learning.

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Activity I.2: What's up With the Pendulum?

(Demonstration)

1. **WHAT DO YOU THINK?** Your instructor will show you an object on a string, and a freestanding peg. What do you think will happen when the object is able to swing?
2. **WHAT DOES YOUR GROUP THINK?** Compare your idea with the ideas of others in your group. Record those that are different from yours. Can you reach a consensus?
3. **MAKING OBSERVATIONS:** What did you observe when the object was allowed to swing? Did this confirm your prediction? If not, how was it different from your prediction?
4. **MAKING SENSE:** Look back at your original idea in step one. What new understanding of the initial situation can you create that is consistent with the observations that you made? What were the limits of your original ideas? How do they need to be expanded or modified in order to fit the observations?

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Homework I1.1: Tasks for Next Class

NAME: _____ SECTION: _____
DATE: _____ TA: _____

Your first assignment is to complete six preparatory tasks:

1) Get your accounts working:

a) Get your "trentu.ca" email account activated - you may have to log on to <http://www.trentu.ca/claimid>. Since all official course email will go to your "trentu.ca" email account, if you want to use another one you will have to set your "trentu.ca" email to be automatically forwarded.

b) Access your MyLearningSystem account: Log on to <http://www.trentu.ca/mytrent/> and make sure that you can access the course. Look at the "Discussions" items on MyLearningSystem and see if anyone has started any interesting discussions.

Note that your MyLearningSystem and your "trentu.ca" email accounts have the same password.

2) (1 point) Complete the demographics survey on myLearningSystem.

3) (4 points) Complete "Assignment 0" on MyLearningSystem. In brief: discover what you can about "constructivist learning" and the meaning of the word "pedagogy". Upload a computer file to the "electronic drop-box" on MyLearningSystem with this information (limit yourself to 100 words or so). See MyLearningSystem's "Assignment 0" for detailed instructions about formatting, content, electronic file format, and grading.

4) (2 points) Send me (jbeda@trentu.ca) a short email message (under 100 words) introducing yourself, and telling me your expectations for the course. Send this message from your "trentu.ca" email account, and have "Physics 2091H Intro" be in the subject line.

Homework I1.1: Tasks for Next Class

NAME: _____ **SECTION:** _____
DATE: _____ **TA:** _____

5) (2 points) Post a message in the class MyLearningSystem discussion topic "Homework 01/Assignment 0" in the category "Homework and Assignments". Make the posting (under 100 words), with the subject "HW01 - Intro Messages". Include something interesting - maybe your favourite cookie recipe or a non-offensive science joke.

6) (1 point) Bring \$20 to next class - make cheques payable to "Trent University Department of Physics and Astronomy".