Policies and Information for
the Labs Accompanying Phys1230
Spring 2020

Section C1  Mon 1:50-4:50
Section C2  Tue 8:10- 11:10
Section C3  Tue 1:00-4:00

All labs meet in room RSC 008.

Instructors:

Kevin Stanley (Section C1):
office RSC 107    ph (651) 523-3060    mstanley01@hamline.edu
office hours: M 11:30 - 12:30, T 3 - 4, W&F 9 -10, R 4:10 - 5:00

Jerry Artz (sections C2 and C3):
office RSC 126    ph (651) 523-2256    jartz@hamline.edu
office hours: M W F 9:45 – 11 am, W 2:00 – 3:30 pm

Expectations and Policies:

A standard lab notebook for you to record all your data, observations, and conclusions
will be provided as part of the $5 lab fee (the fee is $3 if you provide your own suitable
notebook). Your notebook needs to be turned in within 24 hours of the completion of the
lab session. Notebooks can be turned in at your instructor’s office. Despite notebooks
not being due at the end of lab, you are encouraged to finish your report and turn your
notebook in before leaving.

You are expected to attend every lab session, and a score of zero is assigned to any lab
that you did not perform regardless of the reason. In some circumstances the instructor
may, at his discretion, allow students who miss a lab to perform that lab in another
section. In very special circumstances, arrangements may (again at the instructor’s
discretion) be made for a student to make-up the lab at another time (particularly if you
tell your instructor in advance about a conflict). However, please note that any student
allowed to perform the lab outside of a normal lab session will be required to turn in a
formal lab report in addition to his/her notebook.

Your lecturer will incorporate your lab score in his calculation of your overall course
grade. The lab score used in this manner is simply the average of your scores on every
lab (no scores are dropped).
Lab Reports:
Each week you will create a lab report in your notebook, preferable during the lab session. In your instructor’s opinion there is no single correct way to write a lab report, and what works well for you may not be best for your lab partner. Please, however, get in the practice of directly recording your raw data as it is taken either directly into your notebook or into a computer file that you print out and attach into your notebook. Data should **never** be recorded on scratch paper and later transferred or converted to different units before first being recorded in the form it was taken. If you are unsure how to organize your report, you might try using the “typical” sections listed below.

**Introduction** - your name, lab partners’ names, date, experiment title

**Purpose** - brief explanation of what concepts are to be learned/explored

**Procedure** - brief explanation of how the equipment is used to learn these concepts and a description of the equipment used (a sketch of the equipment is often expected)

**Data/Analysis** - a presentation of the data taken in a logical fashion (i.e. a data table, graph, etc.) & how the data was interpreted

**Error/Uncertainties** - listing uncertainties related to each type of measurement made (e.g. if you think a length measurement was accurate to within +/- 0.5 cm, this can be written concisely as “Δx = 0.5 cm”), and percent error calculations when relevant (i.e. when a value for a given quantity is predicted by an equation, then measured) using:

\[ \% \text{error} = \frac{\text{measured} - \text{theoretical}}{\text{theoretical}} \times 100\% \]

**Conclusion** - a brief explanation of what you learned from the lab, and how successful you felt the experiment was

Lab Schedule:

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<tr>
<th>Dates</th>
<th>Activity</th>
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<tr>
<td>Feb 10th – 11th</td>
<td>Calculus Review and Pre-Test</td>
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<tr>
<td>Feb 17th – 18th</td>
<td>Vector Addition (Force Table)</td>
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<td>Feb 24th – 25th</td>
<td>Kinematics</td>
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<tr>
<td>Mar 2nd – 3rd</td>
<td>Newton’s 2nd Law</td>
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<td>Mar 9th – 10th</td>
<td>Work &amp; Energy</td>
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<td>Mar 16th – 17th</td>
<td>Collisions</td>
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<td>Mar 23rd – 24th</td>
<td>** Spring Break **</td>
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<tr>
<td>Mar 30th – 31st</td>
<td>Rotational Dynamics</td>
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<td>Apr 6th – 7th</td>
<td>No lab this week</td>
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<td>Apr 13th – 14th</td>
<td>Simple Harmonic Motion</td>
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<td>Apr 20th – 21st</td>
<td>No lab this week</td>
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<td>Apr 27th – 28th</td>
<td>Calorimetry</td>
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<td>May 4th – 5th</td>
<td>Thermal Conductivity</td>
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<td>May 11th – 12th</td>
<td>Ideal Gas/Heat Engines</td>
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