

111 physics500 lab notebook

- 1) All information *must* be recorded in your lab notebook.
- 2) Follow the format presented to you on the board for writing in your lab notebook and have me sign at the end of the lab.
- 3) All experiments must have a
 - a. TITLE
 - b. PURPOSE
 - c. HYPOTHESIS
 - d. EXPERIMENT (section)
 - i. EXP 1
 - ii. EXP 2
 - iii. etc
- 4) Calculations must show the FORMULA before numbers are inserted, to assure dimensional analysis
 - a. Speed m/s = distance ÷ time ~
 - b. 1.21m/s = 5.00m ÷ 4.12seconds
- 5) You MUST show how you do your calculations for at least 1 of the problems of each type (example given in class).
- 6) You MUST have units with numbers (g, cm, ml etc.)
- 7) Rules for significant figures and scientific notation apply to all numbers; if number is exactly 5m and you can have three significant figures then it should be 5.00m.
- 8) Tables should be drawn using the block grids (see below for table layout)
- 9) The lab notebook should be legible! This means... I should be able to read it.
- 10) Lab grades (besides a formal lab write up) will also have a Lab notebook grade, due the day of the lab report.
- 11) Experiments should be diagramed with a flowchart (example in class), to show the thinking behind the process.

Table 1: Data from outside

<i>Participant</i>	<i>Activity</i>	<i>Distance</i>	<i>Time Trials 1,2,3</i>			<i>Average time</i>	<i>Rate m/s</i>
1	Hopping	4.00m					
2	Hopping	4.00m					
3	Hopping	4.00m					
1	Walking backwards	4.00m					
2	Walking backwards	4.00m					
3	Walking backwards	4.00m					
1	Crawling	4.00m					
2	Crawling	4.00m					
3	Crawling	4.00m					

Table 1: Experiment 2 data on unknown distance

Name	Activity	Time Trial1	Time Trail2	Time Trial3	Average time ^A	AVG Velocity ^B	Distance ^C	% Error ^D
	Hopping							
	Walking backwards							
	Crawling							

A= (Time1 + Time2 +Time3)/3

B= From Graphs 1,2,3

C= Average time x Velocity

$$\text{Percent error} = \frac{(\text{observed value} - \text{true value})}{\text{true value}} \times 100$$

D=