K. Meyer-Canales
Spring 2007

Name:___________________________________

PH 4B Lab Notebook Table of Contents

See ***Course Outline*** for list of labs for which a formal report may be done and when the formals are due.

Lab #	E.P.**	Formal***	Date	Experiment	Score/Comments	Page #
1	---	☐	1/11	The Multimeter	_______	_______
2	---	---	1/18	Plotting Electric Fields	_______	_______
3	---	---	1/25	Light Bulb Activity	_______	_______
4	☒	---	2/1	Electric Circuits	_______	_______
			2/8	Finish Electric Circuits & teach Error Prop. (Error Prop. on ? section, TBA)	_______	_______
5	☐	☐	2/15	Millikan Oil Drop	_______	_______
6	☐	☐	2/22	Wheatstone Bridge*	_______	_______
7	---	☐	3/1	RC Decay	_______	_______
8	☐	☐	3/8	Ratio of e/m*	_______	_______
			3/15	**SPRING BREAK**		
			3/22	**MIDTERM EXAM (in lab, Ch 21 – 27)**		
9	---	---	3/29	Current Balance Lab/Activity	_______	_______
10	---	---	4/5	Electromagnetic Interactions	_______	_______
			4/12	Electromagnetic Interactions & Oscilloscope	_______	_______
11	---	☐	4/19	RLC A.C. Circuit	_______	_______
			4/26	**LABORATORY PRACTICAL**		
			5/3	Catch up & Review		
			5/10	**NO CLASSES IN SESSION**		

***** **=** must include a derivation in *Theory* ** E.P. = Error Propagation
*** You are required to complete: 1 informal lab with EP (Lab #3 above), 1 formal lab without E.P. and 1 formal lab with E.P.

CODE FOR LAB COMMENTS

1 = include % difference, % error and/or exact differential (i.e. δf =…) equation(s) in *Theory*
2 = include definition of variable(s) in THEORY
3 = write in your own words or draw on your own
4 = include units
5 = plug numbers into equation and/or only need to show one sample calculation for each type of calculation in ANALYSIS/CALCULATIONS
6 = put data in a table
7 = include estimated random error on all measured values (put in DATA section)
8 = state whether or not the objective of the lab was met
9 = summarize all results [i.e. experimental value(s) & theoretical value(s)] and/or % difference(s) and/or % error(s) in CONCLUSION
10 = include several **specific** sources of error in CONCLUSION (measurement error is NOT acceptable here as it is already accounted for in the error propagation)
11= discuss whether the experiment was successful based upon if the % difference lies within the allowed margin of error (i.e. if the % difference is less than the % error, the experiment was successful)