

Lab Report Guidelines and Marking Scheme

Students' Names:

Total Mark (/20) =

Section and Total Mark	Section Content	Typical Mistake Description	Mistake Symbols	Penalty	Marks Deducted
Cover Page [1 off Overall Mark]	<ul style="list-style-type: none"> Lab report cover page as provided on physics website (see below) 	Failure to attach mandatory cover page and correctly fill all required information	CP		1
1. Objective [Total Mark - 2]	<ul style="list-style-type: none"> Objective of the experiment. Relevant background and significance of experiment. 	Objective is not clearly stated.	O		1
		Background/significance not explained.	B		1
2. Theory [Total Mark - 2]	<ul style="list-style-type: none"> Explanation of theory. 	Inadequate written explanation of theory.	E		1
		Equations incorrectly written or symbols not defined.	S		1
3. Procedure [Total Mark - 3]	<ul style="list-style-type: none"> Indicate the experimental strategy and the procedure followed to obtain the data so that others can assess the validity of the results. Use diagrams to describe the apparatus/equipment. 	The apparatus and/or procedure are not clearly described.	AP		0.5
		Diagrams are not labeled and/or numbered.	D		0.5
		Important information and/or details on data acquisition and analysis are missing or stated incorrectly.	I		1
		Past tense is not used.	PT		0.5
		Passive voice is not used.	PV		0.5
4. Observations and Results [Total Mark - 6]	<ul style="list-style-type: none"> Show all relevant tables and graphs illustrating results. Give all intermediate and final results. Provide appropriate error analysis example calculations. Provide a comparison of experimental result with the accepted value (i.e. percentage error, or "accuracy" or results). 	Observations/data are stated with improper or missing units.	U		0.5
		Data tables are not properly titled and/or numbered, missing units.	TTN		0.5
		Graphs are not titled and/or numbered.	GTN		0.5
		Graph axes are not labeled and/or units are incorrect/missing.	AG		0.5
		Incorrect type of graph is used or information on graph is not clearly labeled.	IG		0.5
		Example calculations are not included and/or not clearly explained step by step.*	Calcs		3 to 6
		Uncertainty propagation calculations not included and/or not clearly explained step by step.*	Uncert		3 to 6
		Clear contradiction between the observed data and the results/conclusions.	CDR		1
		The results are given with an incorrect number of significant digits.	SD		0.5
		Percentage error calculation is missing.	EU		1
5. Discussion and Conclusions [Total Mark - 5]	<ul style="list-style-type: none"> Discuss the results (range, trends, sources of error). Present conclusions based on the results. 	Restatement of results without commenting/discussion.	RR		1
		Incorrect or trivial arguments are used (e.g. sources of error are not sufficiently explained or trivial explanations are offered, such as "old equipment" or "human error," are blamed for poor accuracy).	ITA		1
		Suggestions for improving the experiment are missing, are insufficient, or are inconsequential.	SI		1
		Conclusion is merely a repetition of discussion.	RR		0.5
		A conclusion is drawn, but is not supported by experimental evidence.	CNS		0.5
		No sensible conclusion is drawn.	NC		0.5
		There is no clear evidence of a thorough understanding of the experiment and/or theory behind it.	NU		0.5
6. References [Total Mark - 1]	<ul style="list-style-type: none"> State complete references to any books, articles, websites, etc., from which you obtained information used in your report. Indicate in the appropriate places in the body of the report where these references are being used. A paper without any references will not be accepted. 	Incomplete references to the books or any other sources used in the report.	IR		0.5
		The references do not point to the place in the report where the sources were used.	RNP		0.5
		References not included in report.*	RNI		up to 20
7. Grammar [Total Mark - 1]	<ul style="list-style-type: none"> The paper should be neat and well structured. If the spelling and grammar are so poor that the paper is hard to follow, then another 1 mark will be deducted. 	Sections 3, 4, 5 and 6 do not start on a new page.	NP		0.25
		If done by hand, observations/tables/graphs/formulas are not sufficiently neatly done.	TGF		0.25
		Did not allow at least two spaces between text and tables or figures.	DS		0.25
		Too verbose: report should be as concise/specific as possible.	TV		0.25
8. Academic Dishonesty	<ul style="list-style-type: none"> Academic dishonesty and/or plagiarism in laboratory reports is unacceptable and will result in a mark of zero for the report, and/or academic misconduct proceedings. TAs will report all suspected offenses to the course Professor. 	Plagiarism of reference material.			20
		Copying/representing someone else's work as your own.			20
		Allowing/enabling copying of your work for submission by others.			20

- Reports should be organized and well structured, adhering to the Physics Report Guideline available at www.physics.ryerson.ca/labs.
- Reports should be concise, yet sufficiently detailed that a reader is confident in the validity of the results and could repeat the experiment themselves.

* TA/GA discretion.