

## Physics Lab Assessment Criteria

Each lab that you do will be assessed on one or more of the first five criteria below. The criteria that will be used for assessment will be indicated in the lab hand out. The last two criteria will be used as part of a summative assessment of your overall experimental ability at the end of the course.

<b>Theory</b>	<b><u>Defining research problem</u></b> Research problem is stated clearly.	<b><u>Formulating a hypothesis</u></b> The hypothesis is directly related to the research problem and is explained.	<b><u>Identification of variables</u></b> All the key variables in the investigation are identified
<b>Method</b>	<b><u>Designing a method with appropriate apparatus</u></b> Appropriate apparatus are selected.	<b><u>Designing a method for control of variables</u></b> A realistic method for control of relevant variables is designed.	<b><u>Designing a method for the collection of raw data</u></b> The method designed allows for collection of relevant data and excludes irrelevant data.
<b>Data Collection</b>	<b><u>Collection of raw data</u></b> Data of sufficient quality and quantity is collected	<b><u>Recording raw data</u></b> Raw data is in recorded appropriately, including units and uncertainties.	<b><u>Organizing raw data</u></b> Raw data is presented clearly . (eg have tables with clear and well defined headings)
<b>Processing and Analysis</b>	<b><u>Processing Data</u></b> The raw data is processed correctly to produce results that help interpretation.	<b><u>Presenting data</u></b> Data/results are presented effectively (eg. Using well labeled graphs)	<b><u>Analysis of Data</u></b> Processed Data is analyzed and compared with theory.
<b>Evaluation</b>	<b><u>Evaluation of results</u></b> A valid conclusion which addresses the research problem is given	<b><u>Evaluation of procedure</u></b> The procedure including limitations, weakness or errors are evaluated.	<b><u>Modifying the procedure</u></b> Improvements are suggested where weaknesses are identified.
<b>Technical Skills</b>	<b><u>Techniques</u></b> A range of techniques can be carried out with proficiency and attention to safety	<b><u>Following Instructions</u></b> A variety of instructions can be followed accurately	<b><u>Environmental Impact.</u></b> Attention is paid to environmental aspects of investigations (from tidiness in the lab to disposal of waste)
<b>Personal skills</b>	<b><u>Self Motivation</u></b> Investigations are approached independently, with motivation and are completed.	<b><u>Working with a team</u></b> Collaborative teams can be formed with a variety of people.	<b><u>Recognizing and Encouraging contribution of others</u></b> The views of all members of the team are acknowledged and actively sought.