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|--|---|---|---|-------------------|
| Student Name | | Outcome B – An ability to design and conduct experiments, analyze and interpret data | | |
| Course/Assignment used for Direct Measurement: | | | | |
| Categories of Performance | Level of Accomplishment | | | Sub-Scores |
| | -1 Inadequate <i>(provide comments)</i> | 0 Adequate <i>(description of minimum standard)</i> | +1 More than Adequate <i>(provide comments)</i> | |
| Develops safe and effective laboratory practices and procedures. | | Developed adequate laboratory/experimental procedure. Procedures were free from dangerous methods and are designed with safety in mind. Chose methods and instruments which were appropriate for the objective and followed established protocols where available. Established clear and repeatable procedure which minimized experimental error and confusion. | | |
| Performs experiments carefully, following the plan, minimizing experimental error; collects and presents data as required. | | Experimental procedures were followed. Any oversight that led to minor loss of experimental efficiency and/or loss of data occurred infrequently. Observed and recorded data carefully as needed. Presented raw data neatly and accurately. | | |
| Analyzes data; shows relationships between theory and measurements; attempts to quantify experimental error as appropriate. | | Analyzed and interpreted data carefully using appropriate theory. Presented data and analysis clearly. Compared observed with what was predicted by theory and suggested why they differed, as appropriate. Attempted to quantify experimental error or uncertainty, as appropriate, with adequate success. | | |
| Discovers relevant new knowledge from the data; draws practical and defensible conclusions from the work. | | Discovered relevant new knowledge from the data. Understood impact of measurement error and uncertainty of data. Drew practical and defensible conclusions from the work. Presented findings in a clear, usable format. | | |
| Total Score | | | | |
| <i>(Total scores greater than or equal to zero meet the minimum expectations of the faculty and the program objectives.)</i> | | | | |