Instructor's Rubric for the Assessment of Freshman Physics Labs

	Skills Description	Performance Indicators	Skill Level		
			Developing	Adquired	Mastered
CT:skill 3	Evidence Evaluation: Evaluate evidence/data for credibility (e.g. bias, reliability, and validity), probable truth, and relevance to a situation.	Students show and discuss multiple measurements of the same quantity as evidence of their confidence in the data.	multiple measurements are included, but they are not discussed as evidence for confidence.	multiple measurements are included along with an attempt to present them as a measure of confidence in the data.	multiple measurements are included, along with a clear explanation of why they are believable.
CT:skill 4	Reasoning/Conclusion: Develop conclusions, solutions, and outcomes that reflect an informed, well-reasoned evaluation.	In the conclusion section, the student evaluates if the theory reasonably predicts the results.	A basic comparison between theory and results is included.	A basic comparison is included, and the student attempts to explain the differences.	A basic comparison is included, and possible sources for the discrepancies are given. The student concludes whether or not the predictions are reasonable.
QR:skill 1 6	Communication/Representation of Quantitative Information: Express quantitative information symbolically, graphically, and in written or oral language.	Data section: Data is organized in tables that contain headers and units.	Data is presented in tables, but some headers or units are missing.	Data is presented in tables when appropriate; headers are used, and all units are included.	Data is presented in appropriate tables, with headers and units; the table is named for reference within the report.
		Data section: Figures are labeled correctly, including units for the axes.	Figures are included, but labels are missing.	Figures are included and labeled appropriately.	Figures are included and labeled appropriately; The figure is captioned and named for reference in the report.
		The report is written in paragraph style, easy to read, and with minimal grammar or spelling errors.	The report is hard to read and contains multiple grammar or spelling errors, or the equations are not part of complete sentences.	The report is somewhat easy to read.	The report is written in paragraph style, easy to read, and with minimal grammar or spelling errors.
QR:skill 3	Application of Quantitative Models: Apply appropriate quantitative models to real world or other contextual problems.	Analysis section: using the appropriate models, the student shows the derivation of the results starting from the collected data.	Student shows the data and the results but does not show examples of the derivations.	Student shows the data and the results, but the derivation of the results is sketchy	Student shows the data and the results; derivations are clear.
P&SR:skill 4	Collaboration skills, teamwork and value systems	The student collaborate during the data collection.	The student participates reluctanly	The student engages with their team to perform their tasks.	The student takes leadership of the team.
		The student participates in the team's discussions.	reluctant participation.	Active during the discussions	Promotes the discussion within the team.