PHYS 161 – 2nd Presentation Grading Form (7-9 minutes)

There are 40 total points for this assignment. Unless mentioned otherwise, all items below are worth up 2 points. Note: the instructor reserves the right to reduce a student's score for lack of participation or absence. In general a missed day causes a 10-20 point reduction of score. Expect a 10% deduction if you are not routinely using the equation editor and making your own figures.

1) Data collection and prep day attendance and participation adequate. **(14 pnts)**

Not at all Not really Kinda Absolutely

2) Title slide with full names. Goal slide with main question(s) to be answered.

Not at all Not really Kinda Absolutely

3) Theory**(4 pnts)**: FBDs properly drawn, formatted, and explained? FBDs match the order and orientation of objects in procedure pictures, variables in italics, coordinate system and $\vec{a}$ shown, properly rotated coordinates when appropriate

Not at all Not really Kinda Absolutely

4) Theory: force equations properly written, formatted, and explained? List force eqt'ns, use eqt'n editor, variables in italics, sin and cos not italicized, numerical subscripts not italicized, indicate if equation corresponds to x or y according to FBD, indicate m_1 or m_2 when appropriate, skip algebra steps but show final important eqt'n for $a, \mu, m_2, T, g,$ or whatever, use animations to introduce equations one at a time

Not at all Not really Kinda Absolutely

5) Procedure: Well-labeled sketch of apparatus, use animations to introduce bullet points, key equipment discussed, tell a good story so people get a feel for what you did, any key steps taken to reduce errors?, coord. system shown, etc

Not at all Not really Kinda Absolutely

6) Graphs **(4 pnts)**: Font size, appropriate italics, sig figs, axis labels & units, increments of 1, 2, 5, etc, appropriate use of prefixes to avoid excessive leading or trailing zeros, consistent use of variables (don't switch from variables to words), typically if you have more than one data set use a legend to clarify which set represents theory and which set represents experimental values

Not at all Not really Kinda Absolutely

7) Error bars on plot: Explain process used to obtain horiz & vert error bars (sig fig rules, $\sigma/\sqrt{N}$, err prop, LINEST)
It may help to read the handout "Brief Error Analysis" linked online.

Not at all Not really Kinda Absolutely

8) Quantitative agreement: Describe your method of computing uncertainty to class. Compare the % difference to % uncertainty. If % difference is > % uncertainty, not in quantitative agreement. **If friction:** find average value of μ and statistical uncertainty using $\sigma/\sqrt{N}$. Assume μ_s = 0.9 while μ_k = 0.7 to obtain % difference. **If circular motion:** determine g_{exp} from slope of line and estimate uncertainty using LINEST and propagation of error. **If Atwood's or air tracks:** use a_{exp}'s, your masses and your angle (if used) to obtain several values of g_{exp}. Determine average g_{exp} and associated statistical uncertainty using $\sigma/\sqrt{N}$. It may help to read the handout "Brief Error Analysis" linked online.

Not at all Not really Kinda Absolutely

9) Overall slide formatting/order? title, goal, theory, procedure, data/results/graphs, error analysis & conclusions, large/clear images, appropriate images/video, font size, color schemes, eqtns/wording kept to minimum, proper italics, subscripts, etc

Not at all Not really Kinda Absolutely

10) Overall speaking? Speaking volume, look at audience (not just instructor!), pointer use, 1-2 minutes per slide, obviously practiced, etc

Not at all Not really Kinda Absolutely

11) Were all team members involved and contributing equally?

Not at all Not really Kinda Absolutely

12) Did they stay within time limits? 7-9 minutes.

Not at all Not really Kinda Absolutely