

## AME 21216 – Lab Report Score Sheet

A1/A2 – Meter Stick Measurements and Galileo's Inclined Plane

NDID#: \_\_\_\_\_

Lab Section (Day/time): \_\_\_\_\_

### General Requirements (12 points)

Item and Description	Points Awarded	Possible Points
<b>Overall quality of writing</b> (spelling, grammar, readability, captions, and discussion)		6
<b>Format and Technical Elements</b> (font, margins, page numbers, score sheet, heading, abstract/summary, findings, conclusion, numbered equations, variables, figures, tables, captions, and references)		6
<b>TOTAL</b>		12

**Overall quality of writing** – The student must clearly explain the procedure and *discuss* the results using college-level English.

- Write it second person passive voice. No first-person narratives!
- Avoid long-winded descriptions of the experimental method.
- Focus on discussing the results per the suggested talking points in the lab handout.

### Format

- Use a 12 point “serifed” font such as Times New Roman.
- Document should be double-spaced.
- Document should have 1” margins in all directions.
- Page numbers are required centered at bottom of page.
- Equations must be numbered.
- All variables must be italicized.
- All variables in an equations must be defined (i.e. “where  $c$  is the speed of sound”).
- Plots should always have axes clearly labeled with units.
- Plots should always be centered with captions beneath labeled Fig. 1, etc.
- Tables should always be centered with captions above labeled Table 1, etc..
- Captions should be the same font as the rest of the document.

**References** – The report must include 2 references. These can be data sheets from the lab website, articles from the internet, the textbook, etc. References should follow the ASME format. (<https://www.asme.org/shop/proceedings/conference-publications/references>)

### Specific Requirements for A1/A2 (23 points)

Note that any curve fit or theoretical curve must be plotted as a *smooth, continuous* line, and the equation for said curve *must* be included as a numbered equation in the main text with all the variables defined. For more details on any of the items below, please refer to the lab handout.

Item and Description	Points Awarded	Possible Points
Schematic illustrating the technique for measuring water tower height		3
Photo of parabolic fountain jet with dimensions superimposed		3
Equations for initial velocity components in terms of parabola dimensions		2
A table containing: <ul style="list-style-type: none"><li>• Measured tower height compared to actual value</li><li>• Hydrostatic pressure at base of water tower</li><li>• Fountain initial velocity x-component <math>v_{x0}</math></li><li>• Fountain initial velocity y-component <math>v_{y0}</math></li><li>• Estimated stagnation pressure inside fountain nozzle</li></ul>		5
Plot of distance $x$ vs. time $t$ for both angles on inclined plane <i>with quadratic curve fits</i>		4
Extrapolated values of $g$ with uncertainties (these should go in the caption of previous item)		3
Plot of measured distance $x$ vs. time $t$ for Brachistochrone along with the theoretical curve		3
<b>TOTAL</b>		<b>23</b>

OVERALL SCORE \_\_\_\_\_ / 35