

## AME 21216 –Score Sheet

A4 – Sensor Calibration

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

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

For more details on any of the items below, please refer to the lab handout.

Item and Description	Points Awarded	Possible Points
<b>Technical Writing</b> – Using the correct format, please address all questions from the lab handout in the paragraphs.		4
<b>Plot of pressure <math>P</math> (units of Pa) as a function of transducer voltage <math>V_{out}</math> with linear curve fit</b>		4
<b>Calibration equation for pressure transducer with values specified for <math>a</math> and <math>b</math> (check units)</b>		2
<b>Sensitivity <math>k</math> and range <math>\Delta P_{max}</math> for the pressure transducer (check units)</b>		2
<b>Plot of air speed <math>u</math> (units of m/s) vs. flow rate <math>Q</math> (units of m<sup>3</sup>/s) with theoretical curve</b>		5
<b>TOTAL</b>		16

## Technical Writing

- Include a brief, single-paragraph summary of the procedure.
- Discuss the results using college-level English.
- Address the suggested talking points at the end of the lab handout.
- Do *not* write a first-person narrative. Rather, write it as a declaration of objective observations, scientific facts, and logical deductions.

## Guidelines for Deliverables

- 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 screen with the same font as the rest of the document.
- Equations must be numbered.
- All variables must be italicized.
- All variables in equations must be defined (i.e. “where  $c$  is the speed of sound”).
- **Tables** should always be centered with captions *above* labeled Table 1, etc..
- **Tables** should have black text on white background with 12 point Times New Roman.
- **Tables** should have the text centered both horizontally and vertically.
- Theoretical curves should always be smooth and continuous.
- Captions should be the same font as the rest of the document.
- Do *not* use the \* symbol to denote multiplication.
- No titles on graphs.

**References** – Tech memos must include at least one reference. 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>)