

AME 21216 –Score Sheet

A3 – 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 |
|---|----------------|-----------------|
| Technical Writing – Using the correct format, please address all questions from the lab handout in the paragraphs. | | 4 |
| Plot of pressure P (units of Pa) as a function of transducer voltage V_{out} with linear curve fit | | 4 |
| Calibration equation for pressure transducer with values specified for a and b with correct units | | 2 |
| Sensitivity k and range ΔP_{max} for the pressure transducer with correct units | | 2 |
| Plot of air speed u (units of m/s) vs. flow rate Q (units of m³/s) with theoretical curve | | 5 |
| TOTAL | | 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>)