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|  | *Calibration* | T-316-LABB Fall 2023 |

1. Obtain the *Calibration Report*. The calibration data (in Table 1) are provided for you as an Excel worksheet and a MATLAB data file. You may use the report and Example1 as guides.
2. Reproduce Figures 3 and 4.
3. Determine accuracy from your graph. Confirm your result agrees with the accuracy reported in equation (9) in the report. Report accuracy as a percentage of output span (“output span” is defined in the definitions section of the report).
4. Reproduce the data in Figure 5 and add a least-squares curve-fit.
5. Estimate linearity as the maximum deviation from your least-squares curve-fit. Express your result as a percent of output span. Compare your linearity estimate with the estimate given in the report.

# After the lab is complete.

Consider the following questions .

* Can you explain, in writing, the principle of operation of this sensor?
* Can you determine the resolution, range, and sensitivity of the measurement system?
* Can you interpret transducer readings?
* Can you perform and explain the uncertainty analysis?