

ME 552 Term Project Part 3
Setting up of Experiments and Calibration
Due: Friday March 3rd by 4 pm

Your team needs to begin setting up your experimental arrangement and calibrate the instruments which you will use for your project. Proper calibrations with documented uncertainty are critical to ensuring that the data you collect is meaningful. Take care in considering your calibration source (i.e., the standard) and justify why it is acceptable.

Your report must include the following:

- a) Briefly summarize the objective(s) of your project and list the measurements which will be collected. Describe why or why not the different instruments need to be calibrated.
- b) Report the calibrations in professional plots or tables.
- c) Describe the standard which was used to perform the calibration.
- d) An illustration of your experimental arrangement can be quite helpful in conveying information about your experiments.
- e) Determine and report the uncertainty of your calibrated values. Be sure to include the uncertainty trees (as needed) and report the uncertainty of both the independent and dependent variables.
- f) Describe any lessons which were learned or matters which should be considered when using the instrument.

The grading matrix is listed below.

Content	Percentage of grade
Professional (grammar, punctuation, spelling, etc.)	20
Summarize objectives and list measurements and what to calibrate	10
Report calibrations professionally	25
Describe standard	15
Report uncertainty and show how it is determined	20
Describe lessons learned from start of measurements	10