Grade Criteria for Lab Report #3 (Extended Abstract):
Measurement of Stress with Bonded Strain Gages
(Total: 5 points + 1 bonus point)

1. General Format (0.5 points)
   - Cover page
   - Experimental system
   - Sample calculations
   - Results and discussions
   - Conclusion
   - Appendices
     - Lab manual
     - Original data

2. Experimental Systems (0.5 point)
   - Schematic diagram of experimental system
   - Actual images of the system and its key components

3. Sample Calculations (2 points)
   - Bridge constants; at least one case each for bending and torsion
   - Analysis of theoretical strain and stress:
     - Bending load
     - Torsion load
   - Analysis of measured strain and stress:
     - Bending load
     - Torsion load
   - Error analysis between actual stress and measured stress:
     - Bending load
     - Torsion load
   - Calibration numbers for cases 24 – 26

4. Results and Discussions (2 points)
   - A completed table including: output reading (Q); calibrated reading (P); bridge constant (N); theoretical strain & stress; measured strain & stress; and relative error.
   - Comments on the results, methods, or other experimental parts.
   - System uncertainty analysis of stress measurement (1 bonus point):
     - Bending load; or
     - Torsion load