The technical memo MUST follow the *Technical Memo* format posted on the website. Further, it must conform to the guidelines given in Chapters 11 and 12 of the class text *(Dunn)* on writing technical memoranda, number and unit formats, and graphical presentation. The rubric and detailed standards used in grading are as follows:

<table>
<thead>
<tr>
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<th>Excellent</th>
<th>Good</th>
<th>Average</th>
<th>Fair</th>
<th>Poor</th>
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<tbody>
<tr>
<td>General Requirements</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Technical Elements I:</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Figures &amp; Tables</td>
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<tr>
<td>Technical Elements II:</td>
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<tr>
<td>Variables, Symbols, Equations</td>
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<tr>
<td>Quality of Writing</td>
<td>5</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Technical Understanding</td>
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<td>4</td>
<td>3</td>
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<tr>
<td>&amp; Interpretation</td>
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<tr>
<td>References</td>
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</tbody>
</table>

**Total Points:** ____/30

**Late Penalties:** _______

**Grade:** ____/30

**General Requirements (5pt.)**
- Technical Memo (TM) includes **NDID Number** for identification
- Document uses the proper format and organization (i.e. Technical Memo format).
- The submitted assignment
  - is **double spaced**,
  - has **references and footnotes single spaced**
  - is **no more than seven (7) pages in length**,
  - has **1 inch margins**,
  - is **stapled**.

**Technical Elements I: Figures & Tables (5 pt.)**
- All figures and tables are technically correct.
- All figures and tables have a reason to be in the text (no superfluous figures and tables).
• All figures and tables are properly labeled (i.e. Figure 1, Table 1, etc.), captioned, and referenced in the text.

• Figures:
  o All axes are labeled (with appropriate units)
  o All data point markers are clear and distinct from point markers for other data sets.
  o Continuous functions are plotted as straight lines with no point markers.
  o Legends are included and labeled clearly (i.e. NOT data1, data2, etc.)
  o All figures have a white background, and no outer border (axes borders and grids are not outer borders).

• Tables:
  o All rows and columns are labeled (with appropriate units)
  o All numerical results presented in tables have the correct number of significant digits
  o Tables are easy to read/understand (font is appropriately sized, data is presented in straightforward manner)

Technical Elements II: Variables, Symbols, & Equations (5 pt.)
• Variables and symbols are identified in the text the first time they are used
• Variables and symbols are presented in the correct formatting (i.e. italic for variables).
• Variable/symbol units are identified and presented in the correct format
• Equations are introduced in the text when they are used, and correct grammar is used with equations.
• All variables and symbols (aside from common +, -, *, /, etc.) used in equations are introduced in the text preceding or following their first use in the text.
• Equations are numbered in order of use, and are referenced in the text.

Quality of Writing (5 pt.)
• Written in 3rd person
• Written in past tense
• Writing follows logical progression.
• Sentences are well formed and intentional
• ‘Summary’ (or ‘Abstract’) section:
  o Properly summarizes the work. No superfluous details are included, and the relevant results and conclusions are covered (including quantified values).
  o NO figures, equations, or tables are found in the summary, nor are there references to figures, equations, or tables in the summary.
• Is the writing compelling and easy to read?

Technical Understanding & Interpretation (5 pt.)
• Is there quantitative comparison of measured & theoretical values?
• Are all plots and tables technically correct and discussed appropriately?
• Are the discussions and conclusions scientifically viable?
• Is there a clear (1) comprehension of purpose of the experiment and (2) an interpretation of data and analysis which furthers that purpose?
• Are all the relevant technical details addressed?

References (5 pt.)
• Are references used in the Technical Memo?
• Are the references in proper format?
• Are references correctly referenced in the body of the text?