## Finals Scoring Rubric (Engineering)

### Poster Evaluation

<table>
<thead>
<tr>
<th>Point Value:</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
</table>
| **Content**  | Includes the following sections:  
• Exploration  
• Design Concepts  
• Engineering Design  
• Results (Figures & Text)  
• Interpretation  
• Evaluation | Includes four of these sections | Includes 3 or fewer of these sections |
| **Overall Presentation** | The overall poster meets the following criteria:  
• The sections listed above are clearly labeled  
• The poster is neat and visually appealing  
• Text has been edited and is typo-free | Meets two of these criteria | Meets one or fewer of these criteria |
| **Defining Problem** | Includes a problem that is specific, challenging and can be investigated given available resources | Includes a problem that is specific, but not challenging and/or includes a problem that is too broad | Does not include a problem or includes a problem that cannot be investigated |
| **Exploration** | The background section meets the following criteria:  
• Explains why this problem is relevant  
• Written formally, in third person, and in past tense | Meets one of these criteria | Does not meet either of these criteria |
| **Design Concepts** | The poster meets the following criteria:  
• Discusses at least 3 variables that affect the problem  
• Proposes more than one potential solution to the problem  
• Clearly indicates which solution is addressed by this project | Meets two of these criteria | Meets one or fewer of these criteria |
| **Engineering Design** | The summary of experimental design meets the following criteria:  
• Clearly lays out design specifications in paragraph format  
• Clearly defines how the design will be tested including what and how the results will be evaluated  
• Written formally, in third person, and in past tense | Design process laid out in step-by-step format (numbered list)  
OR  
Meets two of these criteria | Meets one or fewer of these criteria |
| **Results (Figures & Tables)** | Poster includes figures and/or tables that meet the following criteria:  
• Includes quantitative data  
• Data is displayed in the appropriate format (table vs. graph, bar graph vs. line graph)  
• Numbered sequentially and accompanied by descriptive title  
• Axes, columns and rows clearly labeled (including units) | Meets three of these criteria | Meets two or fewer of these criteria |
| **Results (Text)** | Poster includes a written summary of the data that meets the following criteria:  
• Includes quantitative data  
• Refers to all figures and tables by number  
• Summarizes raw data points. Highlights trends, but does not interpret  
• Written formally, in third person, and in past tense | Meets three of these criteria | Meets two or fewer of these criteria |
| **Interpretation** | Poster includes a discussion that meets the following criteria:  
• Refers to all figures and tables by number  
• Interprets results and trends in the data  
• Written formally, in third person, and in past tense | Meets two of these criteria | Meets one or fewer of these criteria |
| **Evaluation** | Uses data and logic to explain whether the product solved the problem and if the solution is feasible | Addresses the problem, but logic is unclear and/or does not address feasibility | Does not explain if the solution solved the problem |
| **Future Plans** | As part of the conclusion, the author addressed:  
• Potential sources of error and proposed solutions  
• Weaknesses and trade-offs in design  
• Relevance (application, policy decisions, satiation of curiosity, etc.)  
• Future areas of research | Meets three of these criteria | Meets two or fewer of these criteria |
### Student Presentation Evaluation

<table>
<thead>
<tr>
<th>Point Value:</th>
<th>4</th>
<th>2</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td>Student exhibited thorough knowledge of science relevant to their project</td>
<td>Student had some knowledge of science related to their project</td>
<td>Student had little knowledge of the science related to their project</td>
</tr>
<tr>
<td><strong>Understanding</strong></td>
<td>Student fully understood the results of the experiment and was able to explain the logic behind their interpretation</td>
<td>Student exhibited some understanding of their results and/or provided a somewhat logical interpretation</td>
<td>Student was unable to clearly explain the results of the experiment</td>
</tr>
<tr>
<td><strong>Use of poster in presentation</strong></td>
<td>Student indicated (but did not read) the graphics on the poster throughout their explanation</td>
<td>Student did not indicate the graphics on the poster</td>
<td>Student read the poster to the audience</td>
</tr>
<tr>
<td><strong>Answering Questions</strong></td>
<td>Student provided clear, concise and thoughtful responses to ALL questions</td>
<td>Student provided clear, concise and thoughtful responses to SOME questions</td>
<td>Student was unable to answer most questions</td>
</tr>
</tbody>
</table>
| **Delivery** | Student met the following criteria during presentation:
- made eye contact with audience
- was easily heard
- exhibited professional behavior (no gum chewing, swearing, etc.)
- was a dynamic and enthusiastic speaker | Student meets 3 of these criteria | Student 2 or fewer of these criteria |