**ME 497 CAPSTONE DESIGN PROJECT # \_\_\_\_\_\_\_**

**Scoring Sheet for Technical Portfolio Revision #3**

**250 Points Possible**

|  |  |  |
| --- | --- | --- |
|  | **Yes** | **No** |
| **Updates to Revision #1 & #2 Elements:**  Has the Team Charter, Roles & Responsibilities, WBS, Project Schedule, Customer Requirements, Engineering Specifications, and Codes & Standards been updated as required?  Comments: |  |  |
| **House of Quality:**  Has the HofQ been updated as appropriate from previous revisions?  Has the HofQ been updated to include testing procedure references?  Did the project advisor and sponsor sign the HofQ?  Is the HofQ readable?  Comments: |  |  |
| **Design Specifications:**  Based on the information provided, would it be possible (in your opinion) for mechanical engineers unassociated with this project to construct the specified design? *Please note any missing or unclear information that would hinder a project outsider’s efforts to build this design.*  Are the spec sheets for purchased components included as appropriate?  For projects with sub-teams, is the integrated design presented as reference?  Are the drawings high quality?  Comments: |  |  |
| **Bill of Material:**  Does the BOM contain all parts and materials needed to manufacture the design specified?  Have all manufacturing costs been accounted for in the costs?  Comments: |  |  |
| **Technical Analysis:**  Has the team performed an appropriate level of technical analysis for this project?  Does each technical analysis follow the required format guidelines (see page 3)? Is the solution to the analysis clearly stated? Are the implication to the project clearly articulated?  Is the analysis technically correct (if not, what errors?)  Comments: |  |  |
| **Testing Procedures:**  Does each testing procedure follow the required format guidelines (see page 3)?  Are the test procedures sufficiently clear and detailed such that mechanical engineers unassociated with this project could easily follow the instructions and perform the tests?  Do the testing procedures adequately evaluate the corresponding engineering specification?  Do the testing procedures adequately test for all engineering specifications?  Comments: |  |  |

**LEVEL OF ADVISOR INVOLVEMENT AT THIS POINT IN CAPSTONE DESIGN**

*Please briefly describe the frequency of your interactions with the project team up to this point in the course, and the types of help and input solicited by the team.*

**OVERALL RATING OF TECHNICAL PORTFOLIO REVISION #3**

*(\* please explain in comments)*

|  |  |
| --- | --- |
|  | **Acceptable with honors\* (250 points)** |
|  | **Acceptable (225 points)** |
|  | **Acceptable with minor revisions\* (200 points)** |
|  | **Acceptable with major revisions\* (175 points)** |
|  | **Not Acceptable (150 points)** |
|  | **Overall Comments:** |

*Technical Analysis Format Requirements:*

Each analyses should be presented in the following manner:

**Analyst:** Name and signature of the person who completed the analysis

**Date:** Date the analysis was completed

If an analysis is longer than one page, you MUST sign and date each page of the analysis.

**Given:** Summarize the problem at hand and given information (including relevant sketches, dimensions, variables, etc..)

**To Do:** State briefly what is unknown – What is the goal of the analysis?

**Solution:** Present the step-by-step solution to the problem. **Show all of your work!** This section should include all assumptions used to solve the problem. As you go along, include equation numbers so the reader can follow your work. Always include units as appropriate in any calculations.

**Answer:** Clearly state the answer to your analysis and include the implications to your project (ie. “From this analysis it was determined that an air flowrate of 0.4 CFM will provide a sufficient vacuum. Our proposed pump design is capable of taking up to 1.4 CFM, so this flowrate is well within the bounds of our design.”

*Testing Procedures Format Requirements:*

Each testing procedure should be presented in the following manner:

**TP# and Purpose:** The purpose is a short description of the design aspect being verified by the testing procedure and the TP number should match with your HofQ.

**ES(s) Addressed:** List all ESs that are being addressed by this TP. Include both the ES number and attribute

**Test Equipment:** list all test equipment needed to perform the procedure

**Testing Procedure:** List the specific testing procedure steps presented as an enumerated set of user instructions.

**Passing condition:** List the passing condition associated with each ES being tested with this procedure