**MECE 4362 Senior Design II – Final Oral Presentation Rubric: Technical v2**

**Team Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Reviewer\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_**

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| **Presentation**  **Component** | **Expert**  **(10 points for each)** | **Practitioner**  **(8 points for each)** | **Apprentice**  **(6 points for each)** | **Novice**  **(4 points for each)** |
| **Background Research**  Score: \_\_\_\_\_\_ | * Correctly identified **all** major sources of relevant work both in industry and the academy * Demonstrated a thorough understanding of the related technology | * Correctly identified **most** major sources of relevant work both in industry and the academy. * Demonstrated a good understanding of the related “prior art” | * Correctly identified **some** of the major sources of relevant work both in industry and the academy. * Demonstrated some understanding of the “prior art” | * It appears as though ten minutes was spent on a search engine. * Appreciation of the technical context of the project clearly not demonstrated |
| **Problem Solving**  **(UPSE)**    Score:\_\_\_\_\_\_ | * Can identify appropriate process, theory, or tools for solution * Able to formulate & solve * Able to evaluate and contextualize solution | * Can identify appropriate process, theory, or tools for solution * Able to formulate * Able to solve | * Can identify appropriate process, theory, or tools for solution * Able to formulate | * Can identify appropriate process, theory, or tools for solution |
| **Analytical Skills Shown by Applying Math, Science, & Engineering Tools**  Score:\_\_\_\_\_\_ | * Employed appropriate analytical techniques (both fundamental and advanced) acquired in the curriculum to the project at hand. * Clearly demonstrated mastery of several areas of the curriculum * Able to propose innovative solutions. | * Employed appropriate analytical techniques (both fundamental and advanced) acquired in the curriculum to the project at hand. * Clearly demonstrated mastery of many areas of the curriculum | * Employed appropriate analytical techniques (both fundamental and advanced) acquired in the curriculum to the project at hand. * Demonstrated adequate command of some areas of the curriculum | * Did not make use of analytical techniques relevant to the project * Did not demonstrate requisite command of the material covered in the curriculum |
| **Application of MSE Software**  Score:\_\_\_\_\_\_ | * Made use of **all** appropriate and available software | * Made use of **most** appropriate and available software | * Made use of **some** appropriate and available software | * **Did not** make use of appropriate available software |
| **Design & Analysis**  Score:\_\_\_\_\_\_ | * Presented sufficient steps of the various analyses to easily follow development (including assumptions made) * Analyses **always** illustrated with clearly related charts, tables, figures, & equations | * Presented sufficient steps of the various analyses to easily follow development (including any simplifying assumptions made) * Analyses usually illustrated with clearly related charts, tables, figures, & equations | * Presented sufficient steps of the various analyses to follow development though often difficult * Analyses seldom illustrated with clearly related charts, tables, figures, & equations | * Did not present sufficient steps of the various analyses to follow development * Analyses not illustrated with clearly related charts, tables, figures, & equations |
| **Experimental Details**  Score: | Details of Experimental setup including clear sketches, figures, & picture  Clear description of purpose & objectives | Description of experimental setups & some sketches  Incomplete description of purpose & objectives | Inadequate description of experimental method  Limited info relating setup & objectives | No information about experimental setup  No figure or sketch r picture |
| **Data Collection & Analysis**  Score: \_\_\_\_\_ | Detailed discussion of measurement techniques  Detailed & clear analysis of data | Data presented but not the techniques used | Limited data without any analysis | No data or any analysis |
| **Design Summary**  Score:\_\_\_\_\_\_ | * Presented **all** design details including; figure with dimensions, material selections, member loading and safety, costs, etc. | * Presented **most** design details including; figure with dimensions, material selections, member loading and safety, costs, etc. | * Presented **some** design details including; figure with dimensions, material selections, member loading and safety, costs, etc. | * Presented **few if any** design details including; figure with dimensions, material selections, member loading and safety, costs, etc. |
| **Recommendations**  Score:\_\_\_\_\_\_ | * Demonstrated an **acute awareness** of the state of their design relative to the potential for an optimal one | * Demonstrated **good awareness** of the state of their design relative to the potential for an optimal one | * Demonstrated **some** awareness of the state of their design relative to the potential for an optimal one | * **Did not** demonstrate awareness of the state of their design relative to the potential for an optimal one |
| **Handling of Questions**  Score:\_\_\_\_\_\_ | * Demonstrated full knowledge of the material; explained and elaborated on expected questions | * Demonstrated sufficient knowledge of the material to answer expected questions | * Demonstrated difficulty answering expected questions beyond a rudimentary leve | * Demonstrated an inability to answer expected ques |

**Comments below:**

Reviewer Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Content adapted from “UPenn