

Table 1 - Mechanical Engineering Assessment of the Final Thesis/Project Defense

Student Name:

Date:

Research Title:

Committee Members:

Criterion/Trait	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
1. The ability to use advanced mathematics, science, and fundamentals of engineering to solve engineering problems			
2. The ability to perform a comprehensive literature review to identify the frontiers of knowledge in a specialized topic of the discipline			
3. The ability to define, to formulate, and to apply the knowledge of the discipline in the context of a research project			
4. Proficiency in applying experimental, computational, or analytical methods for solving engineering problems			
5. The ability to explain their research results based on fundamental theories and principles of the discipline			
6. Effective communication in technical matters:			
a. oral communication			
b. written communication			
7. An understanding of the values and ethics of engineering			
Overall Assessment:			

Thesis/Project Report: Acceptable as is; Acceptable with revisions; Unacceptable

Oral defense: Pass Fail

Table 2 - Mechanical Engineering Assessment Rubric

Criterion/Trait	Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
1. The ability to use advanced mathematics, science, and fundamentals of engineering to solve engineering problems	Use substantial amount of math and engineering science in problem solving	Use adequate math and engineering science in problem solving	Use little or no math and engineering science in problem solving
2. The ability to perform a comprehensive literature review to identify the frontiers of knowledge in a specialized topic of the discipline	Cite substantial amount of literature in a comprehensive way	Cite adequate amount of literature	Cite few literature in a disjointed way
3. The ability to define, to formulate, and to apply the knowledge of the discipline in the context of a research project	Demonstrate substantial knowledge to define, formula and solve problem	Demonstrate adequate knowledge to define, formula and solve problem	Demonstrate poor knowledge to define, formula and solve problem
4. Proficiency in applying experimental, computational, or analytical methods for solving engineering problems	Demonstrate mature proficiency in applying experimental, computational, or analytical methods for solving engineering problems	Demonstrate adequate proficiency in applying experimental, computational, or analytical methods for solving engineering problems	Did not demonstrate proficiency in applying experimental, computational, or analytical methods for solving engineering problems
5. The ability to explain their research results based on fundamental theories and principles of the discipline	Explain well of their research results based on fundamental theories and principles of the discipline	Adequate explanation of their research results based on fundamental theories and principles of the discipline	Poor explanation of their research results based on fundamental theories and principles of the discipline
6. Effective communication in technical matters: a. oral communication	Oral presentation is clear and effective with excellent audio visual aids	Oral presentation is somewhat clear and use proper excellent audio visual aids	Oral presentation is poor and ineffective and did not use audio visual aids
	b. written communication Thesis/report is written in a sound technical format with good English that clearly and logically summarizes every aspect of the research	Thesis/report is written in good technical format that logically summarize all aspects of the research	Thesis/report is written in poor technical format that did not logically summarize all aspects of the research

7. An understanding of the values and ethics of engineering	1) Excellent and consistent quotations and literature citations in the thesis/report; 2) Excellent narration and discussion of the related ethical issues of the research conducted	1) Adequate quotations and literature citations in the thesis/report; 2) Good narration and discussion of the related ethical issues of the research conducted	1) Poor quotations and literature citations in the thesis/report; 2) Inadequate discussion of the related ethical issues of the research conducted
Overall Assessment:			
	Overall assessment will be given by the defense committee based on the graduate's performance in all criteria areas		