

# Energy Science and Engineering PhD Dissertation Defense Rubric

**Student:** \_\_\_\_\_ **Exam Date:** \_\_\_\_\_

**Reviewer's Name:** \_\_\_\_\_

Please rank the student in each area below using a 1-5 scale (5 is of highest quality).						
Outcome: Demonstrate the ability to formulate and complete an independent, original doctoral dissertation by constructing a written thesis followed by an oral defense of that work. The Energy Science and Engineering dissertation requires specialized and interdisciplinary knowledge within the broad energy arena and a successful defense will display competencies in *1) critical thinking and information literacy; *2) analysis and synthesis of scientific themes; and *3) written and oral communication.						
Written Dissertation	1	2	3	4	5	Learning skills*
Student presents a complete dissertation focusing on a relevant topic in energy science and engineering and thoroughly investigates the background and significance of the problem.						1
Student presents a compelling and cohesive dissertation demonstrating his/her understanding of the problem and clearly defines the methodology used to investigate the problem.						2
Student produces a professionally written dissertation integrating advanced writing techniques. The document is free of grammar and spelling errors and follows general formatting guidelines.						3
Oral Defense	1	2	3	4	5	
Student communicates scientific themes and ideas clearly demonstrating his/her understanding of the problem and his/her findings and/or solution.						2
Student effectively utilizes visual aides to enhance the presentation and to communicate the theme of the dissertation.						3
Student answers questions clearly and thoroughly demonstrating his/her understanding of the problem, the findings and/or solution, and other published research on the topic.						3
Summary	1	2	3	4	5	
Student successfully completes the research required to identify, analyze, and investigate the dissertation topic.						1, 2, 3
Student understands and clearly communicates the relevancy of the problem and the findings and/or solutions with possible links to global energy challenges.						1, 2, 3
Total Score						

Adopted from the Association of American Colleges & Universities Essential Learning Outcomes