

### PhD Qualifying Exam Rubric

This rubric is to be implemented when grading all or a portion of the written qualifying exam **and** during the oral qualifying exam (if held).

Criteria	Does Not Pass Exam	Passes Exam	
	Unsatisfactory	Satisfactory	Exemplary
<b>Application of Engineering / Mathematics / Science (ESM) Concepts and Theories</b>	Student incorrectly applies many ESM concepts to the problem.	Student incorrectly applies some but not all ESM concepts to the problem.	Student correctly and effectively applies ESM concepts to the problem.
<b>Problem Solving Strategies</b>	Student selects and applies inappropriate and/or inaccurate problem-solving strategies to find a solution.	Student selects and applies some inappropriate and/or inaccurate and some efficient problem-solving strategies to find a solution.	Student selects efficient and appropriate problem-solving strategies to find a solution.
<b>Problem Solving Process</b>	Student incorrectly solves the problem. There are major errors in the process used to solve the problem, with steps either missing or wrong steps employed. Written response is minimal, lacking information, detail, and concepts. Sources are not cited.	Student correctly solves the problem with a logical and sequential written response that integrates pertinent information, important details, and concepts. Effective sources are cited. There may be minor errors in the steps getting to the answer but the answer is correct.	Student correctly solves the problem with a logical and sequential written response which integrates substantial and pertinent information, important details, and concepts. Deep, thorough, insightful (sometimes creative) reflective answer given. Effective sources cited.
<b>Work Presentation</b>	Student presents some work in an unclear, disorganized, non- course specific manner. Most aspects of the problem are not addressed and labeled. There is at least one major error in presentation of work.	Student presents work in a somewhat clear, organized, and course specific manner. Most aspects of the problem are addressed and labeled. Minor errors are present.	Student presents all work in a clear, neat, organized, and course specific manner using technology and/or a variety of resources to communicate information. All aspects of the problem are addressed and correctly labeled. No errors are present.