Quantitative Reasoning General Education Outcome Rubric

Students will accurately use numbers, symbols, measurements, properties, and the relationships of quantities to make sound decisions, judgments, and/or predictions.

Capability	Exceeding - 4	Meeting - 3	Approaching - 2	Emerging - 1
Use or **interpret** mathematical models such as formulas, graphs, tables, schematics, and draw inferences from them.	Develops appropriate mathematical expressions and interpretations of quantitative information with clearly defined variables, units, or representations.	Develops appropriate mathematical expressions or competently interprets quantitative information.	Develops mathematical expressions or interpretations of data with few errors.	Inability to interpret quantitative data or develops mathematical expressions with significant errors.
Solve problems using appropriate mathematical methods including arithmetic, geometric or analytical means.	Problem is solved correctly. All work is shown using appropriate methods with no errors in the calculations.	Solution is mostly correct. Work shown is incomplete or contains minor errors.	Attempted to solve the problem. Limited amount of work shown with incomplete or incorrect solution.	No attempt to solve and/or no work is shown to determine the method used.
Communicate mathematical information effectively using symbols, visual, numerical, or verbal representations.	Communicates mathematical information effectively and all symbolic or numerical representations are easy to follow and the solution is clear.	Communicates appropriate mathematical information but some steps are missing or unclear or the solution is wrong even though it is easy to follow.	Communicates some mathematical information correctly but contains conceptual errors or the solution is unclear or difficult to follow.	No attempt or uses little mathematical information or symbols. Solution is incorrect or unclear.
Judge the soundness and accuracy of conclusions derived from quantitative information.	Detailed and clear explanation justifies the accuracy of the answer and conclusions.	Clearly evaluates the accuracy of the conclusion and answer but leaves out some details.	Attempts to evaluate the conclusion or answer, but the justification is either unclear or irrelevant.	No justification or evaluation of the methods, conclusion, or answer.

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