QUANTITATIVE REASONING CURRICULUM - RUBRIC OF LEARNING OBJECTIVES (DESIRED OUTCOMES) & COMPETENCIES

Program goal: Guide and prompt students to interpret mathematical forms, analyze through calculations, and communicate **quantitative reasoning**.

Learning objectives / Desired outcomes	**Levels of Competency**				
	Unsatisfactory	**Emerging**	**Developing**	**Proficient**	**Mastery**
Interpretation *The student is able to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, and words).*	Fails to demonstrate ability to explain information presented in mathematical forms.	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about the information.	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units.	Provides accurate explanation of information presented in mathematical forms.	Provides accurate explanation of information presented in mathematical forms and develops appropriate inferences based on that information.
Analysis *The student is able to perform calculations and draw appropriate conclusions based on them.*	Fails to demonstrate the ability to perform appropriate calculations.	Calculations attempted are both unsuccessful and not comprehensive; tentative judgments are drawn from the calculations, but uncertain about drawing conclusions.	Calculations attempted are either unsuccessful or not comprehensive; commonsense judgments or plausible conclusions are drawn from the calculations.	Calculations attempted are essentially correct and comprehensive; competent judgments or reasonable conclusions are drawn from the calculations.	Calculations attempted are correct and comprehensive, and presented elegantly; thoughtful judgements or insightful conclusions are drawn from the calculations.
Communication *The student can express quantitative evidence in support of an argument (considering what evidence is used, and how evidence is formatted, presented, and contextualized).*	Fails to demonstrate the ability to present an argument for which quantitative evidence is pertinent.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate numerical support.	Uses quantitative information, but does not effectively connect it to the argument.	Uses quantitative information in connection with the argument, though evidence may be presented in a less-than-completely effective format or some parts of the explication may be uneven.	Uses quantitative information in connection with the argument and presents it in an effective format; explicates with consistently high quality.