QUANTITATIVE REASONING CURRICULUM RUBRIC (Q)

Program goal:

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

Student learning objective	Student Learning Outcomes' Levels of competency:				
	Unsatisfactory	Emerging	Developing	Proficient	Mastery
SLO1: Interpretation The student explains 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.
SLO2: Analysis The student performs 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 judgments or insightful conclusion are drawn from the calculations.
SLO3: Communication The student expresses 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.

A **program goal** is a clear statement that expresses what our program will do for students. Each goal is designed to prompt and guide teaching practice and program assessment.

A **student learning objective** is a clear statement about what we expect students to learn or accomplish. Like any type of objective, a student learning objective is a desired outcome.

A **student learning outcome** is the result of a learning process; in other words, it is an actual outcome. To foster assessment of student learning, student learning outcomes must be observable, observed, measurable, and measured. Student learning outcomes can be characterized using an ordinal scale of competency (e.g., unsatisfactory, emerging, developing, proficient, and mastery).

A **competency** is the ability to do something successfully. CU's expectation is that students will perform at or above the level of **Proficient.**