

**RUBRIC FOR QCC EDUCATIONAL OUTCOME #3: REASON QUANTITATIVELY AND MATHEMATICALLY AS  
REQUIRED IN STUDENTS' FIELDS OF INTEREST AND IN EVERYDAY LIFE**

**QUANTITATIVE REASONING RUBRIC FOR SPRING 2016**

<b><u>DIMENSIONS</u></b>	<b><u>Superior - 4</u></b>	<b><u>Competent - 3</u></b>	<b><u>Developing - 2</u></b>	<b><u>Novice - 1</u></b>	<b><u>Insufficient - 0</u></b>
<b>Representation.</b> Demonstrates ability to express information quantitatively in mathematical forms or to accurately convert information presented in mathematical forms to written language	Skillfully extracts relevant information and converts to mathematical/ abstract representation  OR Skillfully converts mathematical/abstract representation and skillfully interprets into relevant and accurate information.	Accurately extracts relevant information and converts to mathematical/ abstract representation  OR Competently converts mathematical/abstract representation and competently interprets into relevant information.	Somewhat accurately extracts relevant information and converts to mathematical/ abstract representation, with minor errors  OR Somewhat accurately converts mathematical/abstract representation and interprets into relevant information, with minor errors.	Inaccurately extracts relevant information and converts to mathematical/ abstract representation  OR Inaccurately converts mathematical/abstract representation and poorly interprets into relevant information.	Does not extract relevant information nor convert to mathematical/ abstract representation  OR Does not convert mathematical/abstract representation and does not interpret into relevant information.
<b>Application of Quantitative Data to Derive New Result(s)/Information</b> Performs quantitative tasks such as: a/ a calculation or estimation to yield a result b/ the extraction and interpretation of information from a graph or other visual representation of data c/the construction of such a representation	Performs calculations with a successful result in a clear, concise, and organized manner.	Performs calculations with a successful result in an adequately clear manner.	Performs calculations with a result that may have minor errors.	Performs calculations with a result that has significant errors, and/or applies the incorrect computational operation.	Calculations are completely inaccurate and/or inappropriately executed.
<b>Analysis, explanation, and interpretation of quantitative data.</b> Performs analysis, explanation or interpretation of aspects of quantitative thinking such as reasoning, method, rationale, or verification of the obtained results.	Quantitative data used in connection to an argument is presented effectively or interpreted or analyzed in a compelling manner.	Uses the Quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from the work.	Quantitative data used in connection to an argument is presented somewhat effectively, and interpreted and analyzed unevenly	Quantitative data is not used appropriately in connection to an argument. The interpretation or analysis is ineffective and does not refer to specific details.	Quantitative data is not used or is provided with minimal or no interpretation.