Objective 1.2: Quantitative Literacy   Course: <u>Analytic Geometry & Calculus I</u>

Students will recognize quantitative relationships, use multiple approaches to analyze these relationships, and apply knowledge of these relationships to solve practical problems.

By graduation students will:	Not Proficient 1 Point	Developing Proficiency 2 Points	Proficient 3 Points	Exceeding Proficiency 4 Points
Communicate mathematical concepts using appropriate notation and terminology.	Unable to communicate concept(s) with any mathematical notation or terminology.	Correctly communicates some of the concept(s) with proper mathematical notation or terminology.	Correctly communicates most of the concept(s) with proper mathematical notation and terminology.	Correctly communicates all of the concept(s) with proper mathematical notation and terminology.
Solve problems graphically, numerically, and algebraically.	Unable to correctly identify a solution using any method	Correctly identifies a solution using one or two of the three methods.	Correctly identifies a solution using all three methods.	Correctly identifies a solution using all of the given methods demonstrating the connections between the three different methods.
Apply linear and non-linear models to real-world situations.	Unable to apply either model to the situations.	Able to apply at least one of the models, but not by using a symbolic representation.	Able to apply both the models, using a symbolic representation for at least one of the real-world situations.	Used symbolic representations to accurately apply both of the real-world situations.

Objective 2.1: Knowledge of the Liberal Arts

Students will possess a broad understanding of how to think about the world, having studied the modes of inquiry characteristic of humanities, mathematics, natural sciences, and social and behavioral sciences.

Outcomes 2.1-C: Mathematical Mode of Inquiry

By graduation students will:	Not Proficient 1 Point	Developing Proficiency 2 Points	Proficient 3 Points	Exceeding Proficiency 4 Points
Express real-world situations using mathematical language (numerals and symbols).	Unable to model the real-world situation.	Able to determine a solution to the real-world situation, but not able to model in mathematical language.	Recognizes the correct mathematical model and expresses the mathematical model in proper notation.	Recognizes the correct mathematical model and is able to correctly apply the model to find a complete solution.
Apply appropriate methods to solve mathematical problems.	Correctly applies one or fewer of the steps to the solving process.	Correctly applies only two or three of the steps to the solving process.	Correctly applies all of the steps to the solving process.	Correctly applies all of the steps to the solving process and represents the final solution in exact symbolic form.
Correctly interpret the solutions of mathematical problems.	Unable to reasonably interpret the solutions.	Interprets the solution generally but does not include specifics to the context.	Interprets the solution specifically but does not completely tie to the context.	Interprets the solution specifically using well-structured contextual statements.