OAK VALLEY COLLEGE

Quantitative Literacy Rubric

Quantitative Literacy (QL) – reflects competency, and comfort in working with numerical data. Strong QL skills reflect ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday situations, creating sophisticated arguments supported by quantitative evidence in a variety of formats using words, tables, graphs, mathematical equations, etc., as appropriate.

	Proficient/Excellent **A**	**Very Good** **B**	**Average/Fair** **C**	**Poor** **D/F**
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Provides accurate explanations of information presented in mathematical forms and makes appropriate inference. *For example, explains data shown in a graph and makes predictions for what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explains the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explains data in a graph, but miscalculates slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, explain data shown in a graph, but will misinterpret the trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful,	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary)	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or

Adapted from the Association of American Colleges and Universities VALUE rubric at https://www.aacu.org/value-rubrics

quantitative analysis of data, while recognizing the limits of this analysis	carefully qualified conclusions from this work.		judgments, drawing plausible conclusions from this work.	uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.