## University of La Verne Quantitative Reasoning Rubric Draft 12/14/10

Learning Outcomes	Accomplished (1)	Developed (3)	Developing (2)	Undeveloped (1)
Learning Outcomes	Accurate and complete or	Competent and proficient	Basia skill 20, 20% errors in	Baginning Balow basic
	Accurate and complete of	10 20% errors in process	Dasic skin—20-3076 errors in	skill greater then 20%
	then 10% errors in process	10-20% errors in process	Process	skiii—greater than 30%
1 Decrease of models models at	chan 10% errors in process			
1. <b>Represent</b> mathematical	Skillully converts and	Competently converts and	Completes conversions of	Completes conversions of
information symbolically,	represents relevant	represents relevant	relevant information into	relevant information into
visually, numerically and	information into various	information into various	various mathematical forms	various mathematical forms
verbally	mathematical forms or	mathematical forms or	but resulting portrayals are	but resulting portrayals are
	portrayals (e.g. equations,	portrayals (e.g. equations,	only partially appropriate	mostly inappropriate or
	diagrams, graphs, tables, and	diagrams, graphs, tables, and	or accurate	inaccurate
	words) in comprehensible	words) in mostly appropriate		
	terms that further or deepen	and adequate terms		
	understanding			
2. Interpret and draw	Provides accurate	Provides accurate	Provides mostly accurate	Provides partially accurate
inference from mathematical	explanations of information	explanations of information	explanations of information	explanations of information
models such as formulas,	presented in mathematical	presented in mathematical	presented in mathematical	presented in mathematical
graphs, tables, and schematics	forms, and makes	forms, and <b>inferences</b> based	forms, and <b>inferences</b> based	forms, and <b>inferences</b> based
	appropriate and insightful	on the information are	on the information are only	on the information are
	inferences based on that	adequate (e.g. trend data in a	partially adequate	inadequate
	information (e.g. trend data in	graph, and statistical or		
	a graph, and statistical or	actuarial significance of		
	actuarial significance of	findings/data)		
	findings/data)			
3. Apply Arithmetical,	Expertly and accurately	Accurately uses arithmetic	Applies mostly accurate	Applies Partially accurate
algebraic, geometric and	uses arithmetic and algebraic	and algebraic functions with	arithmetic and algebraic	arithmetic and algebraic
statistical methods with	functions with appropriate	appropriate technological	functions with appropriate	functions with mostly
appropriate technological	technological tools to solve	tools to solve problems, and	technological tools to solve	appropriate technological
tools to solve problems	problems, and presents	presents calculations	problems, but presentation of	tools to solve problems, but
	calculations clearly and	adequately	calculations are partially	presentation of calculations
	concisely		adequate	are inadequate
4. Think critically and apply	Expertly and accurately	Appropriately uses critical	Occasionally uses critical	Does not adequately use
common sense in estimating	uses critical thinking and	thinking and common sense	thinking and common sense	critical thinking and common
and checking answers to	common sense to check and	to check and verify the	to check and verify the	sense to check and verify the
mathematical problems in	verify the reasonableness and	reasonableness and	reasonableness and	reasonableness and
order to determine	appropriateness of the final	appropriateness of the final	appropriateness of the final	appropriateness of the final
reasonableness, identify	answers, identifies	answers, identifies most	answers, identifies few	answers, is <b>unable</b> to identify
alternatives, and select	alternatives, and selects	alternatives, and selects	alternatives, and selects	alternatives, and selects
optimal results	optimal results	optimal results	partially optimal results	results that are not optimal