

Approved September 24, 2013

Category	New BSC IF 2014 SLOs	SUNY SLOs
MQ Reasoning	<p>Students completing Mathematics and Quantitative Reasoning courses will meet the outcomes listed below in (i) or (ii).</p> <p>(i) <u>Problem Solving and Abstract Reasoning</u></p> <p>Students will:</p> <ol style="list-style-type: none"> Represent and analyze known relationships¹ using algebraic and geometric models Represent phenomena of the physical world² in abstract, symbolic form Solve problems using appropriate methods through logical relationships and reasoning (critical thinking) <p>(ii) <u>Statistical Analysis and Reasoning</u></p> <p>Students will:</p> <ol style="list-style-type: none"> Describe and analyze sets of numerical data visually and quantitatively. Draw valid and meaningful inferences and conclusions from data using appropriate methods. Assess the validity of conclusions drawn from statistical methods.³ (critical thinking) <p>¹ "known relationships" refers to the existing collection of functions and formulas used to describe the world around us. ² "physical world" includes phenomena that we may encounter in the study of the physical, life, and social sciences. ³ "statistical methods" includes research design, data collection, and data analysis</p>	<p>Students will demonstrate the ability to:</p> <ol style="list-style-type: none"> Interpret and draw inferences from mathematical models such as formulas, graphs, tables and schematics; Represent mathematical information symbolically, visually, numerically and verbally; Employ quantitative methods such as, arithmetic, algebra, geometry, or statistics to solve problems; Estimate and check mathematical results for reasonableness; and, Recognize the limits of mathematical and statistical methods.