

Quantitative Reasoning Competency

The following outcomes are modified versions of the AAC&U value rubric for Quantitative Literacy. The Quantitative Reasoning representatives from Indiana University believe that it is important that courses at a post-secondary level designed to meet these outcomes should deepen, extend, or be distinct from high school Core 40 mathematics competencies and would like the ultimate wording of these learning objectives to reflect that expectation.

Interpretation

Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words, geometrical figures).

Representation

Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words, geometrical figures).

Calculation

Ability to correctly solve a mathematical representation using appropriate arithmetic, algebraic, geometric, logical and/or statistical methods.

Application / Analysis

Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis.

Assumptions

Ability to make and evaluate important assumptions in estimation, modeling, and data analysis.

Communication

Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized).