RDG 1300: Student Goals: Building Knowledge of the Discipline of Mathematics

Conceptual Categories

I can identify the purpose for and use different areas of math knowledge such as number, algebra functions, geometry, statistics and probability, and modeling.

Mathematical Reasoning

I can think interchangeably about a math problem in abstract and quantitative terms. I monitor the reasonableness of the relationship between my abstract and quantitative thinking.

Mathematical Representation

I can read and represent mathematics with words, formulas, and mathematic symbols. I can read and create diagrams, tables, graphs, and flowcharts for mathematical purposes.

Mathematical Language

I understand the precise nature mathematical language and use it to communicate exactly.

Problem Identification

I can read and identify “the problem” in a math problem.

Problem Solving

I make conjectures about and evaluate alternative approaches to a problem and then monitor the reasonableness of a solution approach as it proceeds.

Accuracy

I understand that in mathematics there may be alternative approaches to a solution, but only one correct answer. I check that the final solution makes sense, and all computation is correct.

Pattern Application

I look for mathematical structures, approaches, and patterns that I can apply to the solution of new problems.

Mathematical Identity

I am aware of my evolving identity as a reader and user of mathematics.

Schoenback, Ruth, et al. *Reading for Understanding.* Jossey-Bass, 2012, p. 283.