

### Mathematical and Quantitative Reasoning Across the Curriculum Quantitative Literacy Criteria











Listed below are Alverno College's criteria for Levels 1-4 of Quantitative Literacy.

#### **Beginning**

#### Level 1:Uses arithmetic and algebraic methods to solve problems.

- Shows awareness of specific strengths and weaknesses in her own quantitative performance.
- Performs and applies four basic operations using the Rational Number System.
- Solves ratio and percent problems related to everyday living.
- Solves and applies algebraic equations and inequalities.
- Uses quantitative skills in order to help recognize, create and solve problems related to everyday living.

# Level 2: Interprets math models such as formulas, graphs and tables and draws inferences from them.

- Interprets, selects and constructs graphs.
- Analyzes and visualizes geometric concepts.
- Applies measurement concepts.
- Expresses functions as equations and/or graphs.
- Interprets and predicts data using basic probability concepts.
- Interprets, predicts and presents data using basic statistical concepts.

#### **Intermediate**

# Level 3: Thinks critically about her own and others' use of quantitative information and language.

- Identifies quantitative relationships within a context.
- Shows awareness of the assumptions behind quantitative information.
- Shows awareness of the use/misuse of quantitative information.
- Recognizes the relationship between quantitative information and how it is presented to an intended audience.
- Uses basic quantitative abilities to accurately interpret quantitative information and evaluate arguments.

### Level 4: Integrates quantitative abilities to effectively communicate information and respond to problems within a discipline related context.

- Shows evidence of a reflective, deliberate choice to use quantitative information in a discipline related context.
- Organizes, appropriately uses, and clearly communicates quantitative information.
- Shows a refined sense of effective ways to present quantitative information for a specific

audience.

• Evaluates her own use of quantitative information and argument and the implications of her choices.



