

# Mathematics, Life and Physical Sciences

## B4 Mathematics

Upon completion of the GE Mathematics course, CSUB students will or will be able to:

- Goal 1. Have a positive attitude toward mathematics.
  - Objective 1. View mathematics with less anxiety, heightened interest, and increased confidence as a result of their educational experiences.
  - Objective 2. Regard mathematics not simply as a set of techniques, but as a way to think, reason, and conceptualize.
- Goal 2. Be aware of the usefulness of mathematics.
  - Objective 1. Recognize when a specific problem or process may be addressed mathematically and whether they have the ability to solve it; or know which resources to consult in order to solve it.
  - Objective 2. Understand and appreciate the connections between mathematics and other disciplines
- Goal 3. Be competent in the use of mathematics.
  - Objective 1. Understand and perform requisite mathematical calculations and symbolic manipulation
  - Objective 2. Translate verbal statements to and from mathematical expressions.
- Goal 4. Demonstrate an understanding of the uses of mathematics.
  - Objective 1. Interpret, make appropriate judgements, and draw reasonable conclusions based on numerical, graphical, and symbolic information.
  - Objective 2. Critically evaluate quantitative information, and identify deceptive or erroneous reasoning.
- Goal 5. Apply mathematics.
  - Objective 1. Appropriately apply mathematics to model physical and social processes which they encounter in professional, vocational, and everyday settings.
  - Objective 2. Use mathematics-based reasoning to help evaluate alternatives and make decisions on financial, professional, or personal options.
  - Objective 3. Effectively organize, summarize, and present information in quantitative forms, including the use of tables, graphs, and formulas.
- Goal 6. Use appropriate technological tools.
  - Objective 1. Use appropriate technology, including calculators and computers, as tools to assist with numerical and graphical analyses; and also recognize their limitations.

### **Assessment Plan**

Students will be assessed while they are in the mathematical reasoning course they take at CSUB.