

**SOUTHEAST COMMUNITY COLLEGE  
DIVISION OF ARTS AND SCIENCES**

**Mathematics**

**Revision Date: 01-10-22**

[Syllabus Statements](#)

**I. CATALOG DESCRIPTION**

Course Number: MATH1050  
Course Title: Thinking Mathematically  
Prerequisite(s): A grade of "C" or higher in MATH0950 or a grade of "B" or higher in MATH0953 or appropriate score on math placement test.  
Catalog Description: This course is designed to help student think mathematically. It will cover various topics including critical thinking, logic, geometry, advanced algebra skills, basic trigonometry, statistics and other contemporary topics.  
Credit Hours: 3.0  
Class Hours: 45  
Lab Hours: 0  
Total Contact Hours: 45

**II. COURSE OBJECTIVES: *Course will:***

- A. Meet program requirements for students enrolled in specific areas.
- B. Maximize understanding of students desirous of a general education course in algebra, geometry, basic trigonometry, critical thinking, logic and other contemporary topics.

**III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES**

- A. Student Learning Outcomes: *Student will be able to:*
  - 1. Identify and use inductive and deductive reasoning.
  - 2. Identify statements and convert those statements using symbolic notation and vice versa.
  - 3. Use order of operations to evaluate expressions.
  - 4. Understand and perform steps needed to graph functions.
  - 5. Use algebraic properties to transpose formulas.
  - 6. Use geometry concepts to solve polygons for angles, perimeter, area, circumference and volume.
  - 7. Apply basic trigonometry concepts to solve problems.
  - 8. Solve systems of linear equations.
  - 9. Use basic statistics concepts to evaluate data.
- B. General Education Learning Outcomes
  - 1. GELO #5: Analytical, Quantitative, and Scientific Reasoning
    - Outcome: Apply mathematical and scientific methods to solve problems from an array of contexts and everyday situations.
    - Outcome: Effectively develop strategies, algorithms, or experiments (or performing experiments) to better describe the systems or to solve the problems.

**IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)**

- A. Critical Thinking
- B. Logic
- C. Algebra
- D. Geometry
- E. Trigonometry
- F. Statistics
- G. Other Topics

Each instructor will present one unit of contemporary math topics which may include (but is not limited to) set theory, number bases, tessellations, topology, probability, clock arithmetic, voting methods, graph theory, etc.

## **V. INSTRUCTIONAL MATERIALS**

### **A. Required Text(s):**

1. Blitzer, Robert F. *Thinking Mathematically (plus NEW MyMathLab with Pearson eText – Access Card Package)*, 7<sup>th</sup> edition, Pearson, 2019. ISBN-10: 0134683714, ISBN-13: 9780134683713.

### **B. Other resources: Scientific calculator, graph paper, other as determined by instructor.**

## **VI. METHOD OF PRESENTATION/INSTRUCTION**

### **A. Methods of presentation typically include a combination of the following:**

1. Class lecture
2. Text readings and associated student discussions.
3. Problem sets based upon student text readings and/or discussions.
4. Individual student assistance as needed.
5. Group activities and email.

## **VII. METHODS OF EVALUATION**

### **A. Methods of evaluation typically include a combination of the following:**

1. Homework (varies with instructor)
2. Quizzes (varies with instructor)
3. Unit exams (minimum of four)
4. Investigations/Activities/Reports (varies with instructor)
5. Comprehensive final exam (required—counts 10-25% of grade)

### **B. SCC GRADING SCALE**

|    |        |    |       |   |            |
|----|--------|----|-------|---|------------|
| A+ | 95-100 | C+ | 75-79 | F | 59 or less |
| A  | 90-94  | C  | 70-74 |   |            |
| B+ | 85-89  | D+ | 65-69 |   |            |
| B  | 80-84  | D  | 60-64 |   |            |

## **VIII. SPECIFIC COURSE REQUIREMENTS**

### **A. None.**