

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

Mathematics

Revised Date: 01-10-22

Syllabus Statements

I. CATALOG DESCRIPTION

Course Number: MATH0980

Course Title: Geometry

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: Exploratory development of formal representation of logical arguments. Application of logical principles to geometric proofs. Use of problem solving skills in the development of geometric concepts. Consistent use of algebra throughout the course to reinforce skills & concepts developed in earlier algebra course

Credit Hours: 3.0

Class Hours: 45

Lab Hours: 0

Total Contact Hours: 45

II. COURSE OBJECTIVES: *Course will:*

- A. Develop a familiarity with Line & Angle Relationships.
- B. Develop a familiarity with Congruent & Similar Triangles.
- C. Develop techniques to solve Quadrilaterals.
- D. Develop techniques to solve Proportion Problems.
- E. Develop a familiarity with Right Triangles & Circles.
- F. Develop techniques to solve Areas of Polygons & Circles.
- G. Develop a Familiarity with Trigonometric Ratios.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Recognize & Use Line & Angle Relationships.
 - 2. Recognize & Use Congruent & Similar Triangle.
 - 3. Recognize & Solve Quadrilaterals Problems.
 - 4. Solve Proportions problem.
 - 5. Recognize Special Right Triangles.
 - 6. Solve Circles Problems.
 - 7. Find the Area of Polygons & Circles.
 - 8. Use Trigonometric Ratios.

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

- A. Line & Angle Relationships
- B. Congruent & Similar Triangle
- C. Quadrilaterals
- D. Proportions
- E. Special Right Triangles
- F. Circles
- G. Area of Polygons & Circles
- H. Trigonometric Ratios

V. INSTRUCTIONAL MATERIALS

- A. Required Text(s):

1. Alexander, *Elementary Geometry for College Students*, 7th ed., Houghton-Mifflin, 2020, with WebAssign. ISBN: 9780357700006.
- B. Other resources: Calculator with trig functions recommended.

VI. METHODS OF PRESENTATION/INSTRUCTION

- A. Methods of presentation typically include a combination of the following:
1. Lecture
 2. Text Readings and associated student discussions.
 3. Problem sets based upon student readings and/or discussions.

VII. METHODS OF EVALUATION

- A. Methods of evaluation typically include a combination of the following:
1. Attendance/Participation
 2. Quizzes
 3. Exams
 4. Comprehensive Final

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

None.