

MATH 128 - Algebra & Trigonometry (5 Credits)

DESCRIPTION:

A one semester course that is equivalent to the combination of Math 126 and Math 127. Topics include an in-depth investigation of algebraic and trigonometric functions and their graphs, solutions of systems of equations, analytic trigonometry, solutions of triangles, vectors, and analytic geometry. Prerequisite: Satisfactory ACT/SAT/CCSN Mathematics Placement Test score or Math 096 or Math 097 or equivalent.

TEXT:

Precalculus (A Right Triangle Approach), Sullivan and Sullivan

NOTE: Full-time instructors have the right to use no text or a different text.

OUTLINE:

Ch F - Sections F.1, F.2 (quick review), and F.4

Ch 01 - Sections 1.1 - 1.6

Ch 02 - Sections 2.1 - 2.6

Note 1: Variation problems in Section 2.2 may be omitted.

Note 2: Regression problems in Sections 2.2 and 2.6 may be omitted.

AP.11 - Complex Numbers

Ch 02 - Sections 2.7 and 2.8

Ch 03 - Sections 3.1 - 3.4

Note: Variation Problems in Section 3.3 may be omitted.

AP.03 - Polynomial Division Only.

AP.05 - Synthetic Division Only.

Ch 03 - Sections 3.5 and 3.6

Ch 04 - Sections 4.1 - 4.6, and 4.8

Ch 10 - Sections 10.1 (quick review) and 10.6.

Note: Only the two-variable problems need to be covered in both sections.

Ch 05 - Sections 5.1 - 5.8

Ch 06 - Sections 6.1 - 6.8

Ch 07 - Sections 7.1 - 7.3

Ch 08 - Sections 8.1, 8.4, and 8.5

Ch 09 - Sections 9.1 - 9.4, and 9.7

OUTCOMES:

- a. Graph algebraic and transcendental functions.
- b. Analyze properties of functions.
- c. Solve parametric and trigonometric equations.
- d. Verify trigonometric identities.
- e. Solve triangles using the Laws of Sines and Cosines.
- f. Analyze the concept of vectors and complex numbers.
- g. Investigate properties of conic sections.
- h. Apply and extend all concepts.

EVALUATION:

Grades will be determined by student performance in one or more of the following areas: in-class tests, take-home tests, homework assignments, quizzes, special projects, papers, attendance, and class participation.

Degree of importance and types of assessment used will depend on the instructor. However, at least 50% of the course grade used is to be determined by proctored individual exams/assessments.

This course satisfies or partially satisfies the Math component of a degree or certificate program at CSN.