MATH 128 – Precalculus & 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, 9th edition; Sullivan
NOTE: Full-time instructors have the right to use a different text or no text.

OUTLINE:

Ch 1 - All Sections
Ch 2 - Sections 2.1 - 2.5
Ch 3 – Sections 3.1-3.5
Ch 4 – Sections 4.1-4.6
Ch 5 – Sections 5.1-5.8
Ch 6 - All Sections
Ch 7 - All Sections
Ch 8 – All Sections
Ch 9 - Sections 9.1, 9.4
Ch 10 – Sections 10.1-10.4, 10.7
Ch 11 - Sections 11.1, 11.6

OUTCOMES:

a. Solve polynomial, exponential and logarithmic equations.
b. Work with the Cartesian coordinate system, being able to graph linear, exponential, polynomial absolute value, square root, piecewise defined, rational and logarithmic functions.
c. Understand function concepts, including operations on functions, and inverse functions.
d. Solve systems of linear and nonlinear equations.
e. Analyze trigonometric and parametric function properties.
f. Graph trigonometric and parametric functions
  g. Verify trigonometric identities.
h. Solve trigonometric and parametric equations.
i. Solve triangles using the Laws of Sines and Cosines.
j. Analyze the concepts of vectors and polar coordinates.
k. Investigate properties of conic sections.
l. 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.

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