

MATH 111B - Math for Electronics (3 Credits)

DESCRIPTION:

An electronics algebra/trigonometry course which includes signed numbers, laws of exponents, proportions, logarithms, trigonometric functions, and polar and rectangular conversions. Prerequisite: MATH 095 or equivalent. Corequisite: ET 131B.

TEXT:

Technical Mathematics with Calculus, 2nd Edition; Ewen, Gary, and Trefzger

OUTLINE:

- Ch 01 - Fundamental Concepts
- Ch 02 - Review of Geometry
- Ch 03 - Right-Angle Trigonometry
- Ch 04 - Equations and their Graphs
- Ch 05 - Factoring and Algebraic Fractions
- Ch 06 - Systems of Linear Equations
- Ch 07 - Quadratic Equations
- Ch 08 - Exponents and Radical
- Ch 09 - Exponentials and Logarithms
- Ch 10 - Trigonometric Functions
- Ch 11 - Oblique Triangles and Vectors
- Ch 13 - Trigonometric Functions and Identities
- Ch 14 - Complex Numbers
- Ch 15 - Matrices

OBJECTIVES:

- a. Solve linear and quadratic equations.
- b. Solve systems of linear equations.
- c. Work with exponents and radicals.
- d. Work with polynomial arithmetic.
- e. Manipulate algebraic expressions.
- f. Work with rational expressions.
- g. Work with functions.
- h. Perform arithmetic on irrational numbers.
- i. Learn complex number system.
- j. Apply and extend 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.