

# MATH 097 - Elementary and Intermediate Algebra (5 Credits)

## DESCRIPTION:

A one-semester course that is equivalent to the combination of MATH 095 and MATH 096. Topics include solving linear equations in one variable, polynomials, integer exponents, factoring, rational expressions and equations, graphing linear equations in two variable, inequalities, systems of linear equations, radicals and rational exponents, and quadratic equations. Prerequisite: Math 093 or Math 116 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

## TEXT:

Beginning and Intermediate Algebra, 4th Edition, Lial, Hornsby, and McGinnis

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

## OUTLINE:

Ch 01 - A one-day review is suggested.

Ch 02 - Sections 2.1 - 2.8

Ch 03 - Sections 3.1 and 3.4

Ch 04 - Sections 4.1 - 4.7

Ch 05 - Sections 5.1 - 5.6

Ch 06 - Sections 6.1 - 6.7

Ch 07 - Sections 7.1 - 7.3

Ch 08 - Sections 8.1, 8.2, 8.3, and 8.5

Note: In Section 8.5 exclude problems with three or more variables.

Ch 09 - Sections 9.1 - 9.3

Ch 10 - Sections 10.1 - 10.7

Ch 11 - Sections 11.1 - 11.3, and 11.5

## OUTCOMES:

- a. Solve linear, absolute value, and quadratic equations.
- b. Solve linear and absolute value inequalities.
- c. Solve systems of linear equations.
- d. Work with exponents.
- e. Work with polynomial arithmetic.
- f. Factor polynomials and solve equations by factoring.
- g. Work with rational expressions and solve rational equations.
- h. Work with functions and functional notation.
- i. Graph linear functions.
- j. Perform arithmetic on irrational numbers.
- k. 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 DOES NOT satisfy the Math component of a degree or certificate program at CSN.**