

# MATH 132 - Finite Mathematics (3 Credits)

## DESCRIPTION:

Topics include symbolic logic, set theory, and probability theory applied to the analysis of business and social science problems. Prerequisite: Math 124 or Math 126 or Math 128 all with a grade of C or better; or a satisfactory ACT/SAT/Placement Test score.

## TEXT:

Finite Mathematics and Its Applications; 10th Edition; Goldstein, Schneider, and Siegel

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

## OUTLINE:

Ch 01 - A two-day review is suggested.

Ch 02 - Sections 2.1 - 2.5

Ch 03 - Sections 3.1 - 3.3

Ch 04 - Sections 4.1, 4.2

Ch 05 - Sections 5.1 - 5.8

Ch 06 - Sections 6.1 - 6.7

Note: Section 6.8 is optional

Ch 07 - Sections 7.1 - 7.7

Ch 08 - Sections 8.1 and 8.2

Ch 10 - Section 10.1

Note: Sections 10.2 and 10.3 are optional

Ch 11 - Sections 11.1 and 11.2

## OUTCOMES:

- a. Solve systems of equations.
- b. Perform arithmetic of matrices.
- c. Solve systems of equations using Gauss-Jordan elimination method.
- d. Carry out linear programming geometrically.
- e. Perform the simplex algorithm in LP.
- f. Construct Venn diagrams.
- g. Investigate fundamental counting principles, permutations and combinations.
- h. Solve elementary probability problems.
- i. Perform calculations using Bayes rule and Markov chains.
- j. Explore elementary statistics to include normal and binomial distribution.
- k. Investigate the mathematics of finance.

## 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.**