

COCONINO COMMUNITY COLLEGE

COURSE OUTLINE

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A. Identification:

1. Subject Area: Math
2. Course Number: MAT 172
3. Course Title: FINITE MATHEMATICS
4. Credit Hrs: 3
5. Catalog Description:

Various analytical methods used in business and social sciences, including algebra review, functions and modeling, systems of linear equations, matrices, linear programming, mathematics of finance, probability, and combinations. Prerequisite: MAT 142 or placement. Three lecture.

B. Course Goals:

To build student confidence in the use fundamental principles and concepts of analysis in the area of finite mathematics and to develop problem solving skills. To develop a positive attitude toward mathematics and build skills in the listed areas.

C. Course Outcomes:

Students will:

1. Perform elementary matrix operations.
2. Solve non-linear systems by elementary row operations.
3. Solve linear programming problems by graphical and algebraic methods.
4. Perform basic set operations.
5. Evaluate probabilities of simple, compound, independent and dependent events.
6. Calculate measures of central tendency and dispersion for a collection of statistical data.
7. Apply the theories of normal and binomial probability distributions to statistical problems.
8. Solve various financial problems.

D. Course Assessment:

Will include:

1. Comprehensive final exam

E. Course Content:

Will include;

1. Review of Functions
2. Matrices
3. Systems of Equations
4. Linear Programming
5. Set theory
6. Counting Techniques
7. Probability and Statistics
8. Finance problems