NORMANDALE COMMUNITY COLLEGE **4/24/2012**
COMMON COURSE OUTLINE
MATH 1200, FINITE MATHEMATICS

I. EFFECTIVE DATE OF OUTLINE

Fall Semester, 2007. To be reviewed by the department annually.

II. CATALOG DESCRIPTION

A. MATH 1200
B. Finite Mathematics
C. 4 Credits
D. Offered Spring Semester
E. Prerequisite: MATH 0700 and instructor permission, or MATH 1100 with a grade of C or higher, or scoring at MATH 1500 level on placement exam.
F. Financial mathematics, linear systems, matrices, linear programming, probability, Markov chains and game theory. Satisfies MnTC Goal 4.

III. RECOMMENDED ENTRY SKILLS/KNOWLEDGE

Upon entering this course, the student should be able to perform these algebraic skills:

A. Rearrange formulas, solving for given variables
B. Solve linear and power equations
C. Find equations for lines and graph them using intercepts
D. Effectively use internet communication

IV. OUTLINE OF MAJOR CONTENT AREAS

A. Functions and Linear Models
B. Systems of Linear Equations and Matrices
C. Matrix Algebra and Applications
D. Linear Programming
E. The Mathematics of Finance
F. Sets and Counting
G. Probability
H. Random Variables and Statistics
I. Markov Systems

V. LEARNING OUTCOMES

Upon successful completion of MATH 1200, students will be able to: (Letters in parentheses refer to student competencies of the Minnesota Transfer Curriculum, Goal 2–Critical Thinking, and Goal 4–Mathematical/Logical Reasoning.)

Upon successful completion of Math 1500, students will be able to:

A. Set up and solve systems of equations using algebraic and matrix methods. (4a, b, d)
B. Set up and solve linear programming problems by graphing. (4a, b, d)
C. Set up and solve linear programming problems using the Simplex method. (4a, b, d)
D. Solve problems involving annuities and amortization. (2a; 4a, b, d)
E. Recognize and solve counting type problems. (2a, c; 4a, b, c, d)
F. Solve probability problems. (2c; 4a, b, c, d)
G. Set up, solve and analyze statistics problems. (2a, c; 4a, b, c, d)
H. Solve transition and steady-state problems using Markov chains. (4a, b, d)

VI. METHODS USED FOR EVALUATION OF STUDENT LEARNING

The instructor will choose from among various evaluation techniques including – but not limited to – in-class testing, take-home testing, assignments, quizzes, attendance, group or individual projects, and research. The instructor will also choose a method for end-of-the-semester evaluation.

VII. SPECIAL INFORMATION

Your instructor will choose the use of either Excel or TI-83/84 calculator. After registering for your section, contact the instructor.