BERGEN COMMUNITY COLLEGE
DIVISION OF MATHEMATICS, SCIENCE AND TECHNOLOGY
DEPARTMENT OF MATHEMATICS

COURSE SYLLABUS

MAT-155 FINITE MATHEMATICS

COURSE DESCRIPTION: Finite mathematics is an introduction to the solution of problems in management, natural, behavioral, and social sciences. Topics covered include mathematical models, matrices and linear systems, and linear programming.

CREDITS/HOURS: 3 credits,   3 hours

PREREQUISITE: MAT-032 or 035 or 040 or 048 or equivalent by testing

GENERAL EDUCATION COURSE: Yes

STUDENT LEARNING OBJECTIVES: **Upon successful completion of this course, the student should be able to:**
1. Find the equation of a linear function and interpret the result graphically and algebraically.
2. Perform elementary operations on matrices.
3. Solve a system of linear equations, using matrices.
4. Optimize resource utilization under given constraints to maximize profit or minimize costs.

ASSESSMENT MEASURES: Each of the above listed student learning objectives will be assessed by,
1. Written assignments and /or quizzes.
2. Written examinations
3. Other, as announced by the instructor

COURSE GRADE: Students should refer to the instructor's grading policy which will be distributed during the first meeting of the class.

TEXTBOOK: Finite Mathematics for the Managerial, Life and Social Sciences, Tan 12th Edition, Cengage Publisher

COURSE CONTENT:

TOPIC	CHAPTER	SECTIONS
Linear Equations, Inequalities and Graphs,	1	2 – 4
Systems of Linear Equations and Matrices	2	1 – 6, (7 optional)
Linear Programming and its Applications:		
A Geometric Approach	3	1 – 3, (4 optional)
The Simplex Method	4	1 – 3
Applications selected from the following (optional) topics:		
Markov Chains	9	1 – 3
Game Theory	9	4 – 5

ELECTRONIC DEVICES: **The Department of Mathematics prohibits the use of cell-phones, PDA's, laptops, headphones, IPODs and other such devices in mathematics classes unless Otherwise specified in the grading policy provided by the instructor at the beginning of the semester.**

FACULTY ABSENCE PROCEDURE: CLASS CANCELLATIONS may be found at www.bergen.edu/classcancellations A list is also posted in a glass case near A-129, the main corridor on the first floor and in Ender Hall. If a cancelled class is not listed, it should be reported to the Mathematics Department Office or the Adjunct Office (C-107).

WEBSITE: Go to www.bergen.edu/academics/academic-divisions-departments/mathematics for more information regarding the Mathematics Department.

STUDENT SUPPORT SERVICES:

Learning Assistance Center	Room: L-125	879-7489
Math and Science Walk-In	Room: L-131	879-7489
Office of Specialized Services	Room: L-115	612-5269