IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE

COURSE OUTLINE

DIVISION: Science, Mathematics, and Engineering **DATE**: October 12, 2005

COURSE TITLE: College Algebra **COURSE NO.**: MATH 150 **UNITS**: 4

LEC HRS: 4 **LAB HRS**: _____ **HRS. TBA**: _____

If cross-referenced, please complete the following:

COURSE NO.(s): _____ **COURSE TITLE**: _____

I. COURSE/CATALOG DESCRIPTION: A continuation of the study of algebra. Attention will be paid to polynomial and rational functions, Exponential and Logarithmic functions, and Matrix Algebra. Additional topics include systems of equations, Linear Programming, and Analytic geometry.

II. A. PREREQUISITES, IF ANY:
MATH 090 with a grade of C or better.

B. CO-REQUISITES, IF ANY:

C. RECOMMENDED PREPARATION, IF ANY:

III. GRADING CRITERIA:
X Course must be taken on a "letter-grade" basis only.
_____ Course may be taken on a "credit" basis or for a letter grade.
_____ Course must be taken on a "credit" basis only.

IV. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

The student will be able to:

1. Solve Linear & Quadratic equations.
2. Graph Linear & Quadratic equations and use them to model real-world situations.
3. Recognize and graph conic sections.
4. Solve equations involving Polynomial & Rational Functions.
5. Graph and model with Polynomial & Rational Functions.
6. Understand the theory of Exponential and Logarithmic functions.
7. Operate on Matrices.
8. Solve and model with Linear Systems of equations using matrix algebra.
9. Use Linear Programming in common business and science applications.
10. Solve non-linear systems of equations.

V. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

CORE CONTENT	APPROX % OF COURSE
Solve Linear and Quadratic equations	2%
Graphing and Modeling Linear and Quadratic Functions	3%
Analytic geometry	15%
Solving equations with polynomials and Rational Functions	10%
Graphing and Modeling with Polynomial and Rational Functions	15%
Exponential and Logarithmic Functions	15%
Matrix Algebra	15%
Linear Systems	15%
Linear Programming	5%
Non-Linear Systems	5%

VI. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS: (Check all that apply.)

Essay	X	Class Activity	X	Written Assignments	X
Problem Solving Exercise	X	Final Exam	X	Oral Assignments	X
Skill Demonstration	X	Objective	X	Quizzes	X
Other	_____.				

VII. INSTRUCTIONAL METHODOLOGY: (Check all that apply.)

Lecture	X	Discussion	X	Demonstration	X
Audio Visual	X	Group Activity	X	Lab Activity	X
Computer Assisted Instruction	X	Individual Assistance	X	Simulation/ Case Study	X
On-Line	X				

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit.

VIII. TEXTBOOK(S) AND SUPPLEMENT(S):

Barnett, Raymond A. et al. College Algebra. McGraw Hill, 2005.

Aufmann, Richard N. et al. Applied College Algebra. Houghton Mifflin, 2004.

Larson, Ron et al. College Algebra. Houghton Mifflin, 2006.

Beecher, Judith A. et al. College Algebra. 2nd edition. Addison Wesley, 2005.