OHLONE COLLEGE
Ohlone Community College District
OFFICIAL COURSE OUTLINE

I. **Description of Course:**

1. **Department/Course:** MATH - 151A
2. **Title:** Algebra I (Part 1)
3. **Cross Reference:**
4. **Units:** 2.5
   Lec Hrs: 3
   Lab Hrs:
   Tot Hrs: 54.00
5. **Repeatability:** No
6. **Grade Options:** Grade Only (GR)
7. **Degree/Applicability:**
   Credit, Not Degree Applicable (C)
8. **General Education:**
9. **Field Trips:** Not Required
10. **Requisites:**
    Prerequisite
    MATH 190 Basic Mathematics or placement evaluation
12. **Catalog Description:**
    This course includes the study of operations using signed numbers, equations and inequalities, graphs and an introduction to systems of equations. It emphasizes problem-solving skills.
13. **Class Schedule Description:**
    Signed numbers, equations, graphs, systems of equations, and applications.
14. **Counselor Information:**
    This is the first half of the first course in algebra. Coupled with MATH 151B, the two courses are equivalent to MATH 151. It is primarily intended for people who do not wish the more rapid pace of the five unit course.

II. **Student Learning Outcomes**

The student will:

1. Demonstrate basic skills in algebra.
2. Solve linear equations and inequalities.
3. Plot points and graph linear equations in Cartesian coordinate system.
4. Solve systems of linear equations by graphing, substitution, and addition methods.
5. Set up stated problems algebraically and solve the resulting equations.
6. Solve problems presented via formulas or procedures.

III. **Course Outline:**

A. Real Numbers
   1. Real numbers and their properties
   2. Addition and subtraction and absolute value
   3. Multiplication, division, and order of operations

B. Linear Equations and Inequalities
   1. First degree equations
   2. First degree inequalities
   3. Ratios and proportions
   4. Formulas and applications

5. Problem solving

C. Cartesian Coordinate System
1. Graphs of linear equations and inequalities
2. Slope and equations of lines
3. Systems of equations and inequalities
4. Applications

IV. **Course Assignments:**

A. Reading Assignments
1. Selected material assigned by instructor

B. Projects, Activities, and other Assignments
1. Selected homework from course outline

C. Writing Assignments

V. **Methods of Evaluation:**

A. Homework
B. Quizzes
C. Tests
D. Projects

VI. **Methods of Instruction:**

A. Lecture
B. Discussion
C. Demonstration
D. Seminar
E. Self-Paced
F. Computer Assisted Instruction
G. Collaborative Learning

VII. **Textbooks:**

Recommended

1. Bittenger, Ellenbogen, Johnson *Elementary and Inremediate Algebra, Volume I* 4th edition Edition, Pearson Custom Publishing, 2006 ISBN: 0536-32656-8
2. Hawkes Learning Systems *Introductory Algebra* 1st Edition, Hawkes Learning Systems, 2006 ISBN: 0-918091-26-8

Supplemental

VIII. **Supplies:**

A. Graph paper