

**OHLONE COLLEGE**  
**Ohlone Community College District**  
**OFFICIAL COURSE OUTLINE**

**I. Description of Course:**

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|--|---|
| 1. <b>Department/Course:</b> <u>MATH - 151B</u>  | 7. <b>Degree/Applicability:</b><br>Credit, Not Degree Applicable (C)          |
| 2. <b>Title:</b> <u>Algebra I (Part 2)</u>   | 8. <b>General Education:</b>  |
| 3. <b>Cross Reference:</b>   | 9. <b>Field Trips:</b> <u>Not Required</u>                                    |
| 4. <b>Units:</b> <u>2.5</u><br><b>Lec Hrs:</b> <u>3</u><br><b>Lab Hrs:</b><br><b>Tot Hrs:</b> <u>54.00</u> | 10. <b>Requisites:</b><br><b>Prerequisite</b><br>MATH 151A Algebra I (Part 1) |
| 5. <b>Repeatability:</b> <u>No</u>   |   |
| 6. <b>Grade Options:</b> Grade Only (GR)   |   |

**12. Catalog Description:**

This course includes exponents, polynomials, factoring, rational expressions, and applications.

**13. Class Schedule Description:**

Exponents, polynomials, factoring, rational expressions, and applications.

**14. Counselor Information:**

This is the second half of the first course in algebra. Coupled with MATH 151A, the two courses are equivalent to MATH 151. It is primarily intended for people who do not wish the more rapid pace of the 5 unit course.

**II. Student Learning Outcomes**

The student will:

1. Simplify exponential expressions with integer exponents.
2. Identify polynomials and perform operations with polynomials.
3. Factor polynomials using grouping, FOIL, special products formulas, and trial and error methods.
4. Solve quadratic equations using factoring and their applications.
5. Simplify rational expressions and complex fractions and solve applications of rational equations.

**III. Course Outline:**

- A. Exponents and Polynomials
  1. Laws of exponents
  2. Scientific Notation
  3. Sums and differences of polynomials
  4. Multiplication of polynomials
  5. Division of polynomials
- B. Factoring and Applications
  1. Factoring algebraic expressions
  2. Special products

3. Solving quadratic equations by factoring

4. Applications

C. Rational Expressions

1. Multiplication and division of rational expressions

2. Addition and subtraction of rational expressions

3. Complex fractions

4. Rational equations

5. 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. Tests

B. Quizzes

C. Homework

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 Intermediate Algebra, Volume I* 4th edition Edition, Pearson Custom Publishing, 2005 ISBN: 0536-32656-8

2. Hawkes Learning Systems *Introductory Algebra, software* 1st Edition, Hawkes Learning Systems, 2006 ISBN: 0-918091-26-8

Supplemental

VIII. **Supplies:**

A. Graph paper