

OHLONE COLLEGE
Ohlone Community College District
OFFICIAL COURSE OUTLINE

I. Description of Course:

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| 1. Department/Course: <u>MATH - 152B</u> | 7. Degree/Applicability:
Credit, Degree Applicable, Not Transferable (D) |
| 2. Title: <u>Algebra II (Part 2)</u> | 8. General Education: |
| 3. Cross Reference: | 9. Field Trips: <u>Not Required</u> |
| 4. Units: <u>2.5</u>
Lec Hrs: <u>3</u>
Lab Hrs:
Tot Hrs: <u>54.00</u> | 10. Requisites:
Prerequisite
MATH 152A Algebra II (Part 1) or equivalent or Placement Evaluation |
| 5. Repeatability: <u>No</u> | |
| 6. Grade Options: Grade Only (GR) | |

12. Catalog Description:

This course includes the study of relations, functions and their graphs, quadratic functions and equations, exponential and logarithmic functions, conic sections, sequences, series, sigma notation, and the binomial expansion.

13. Class Schedule Description:

Functions, graphs, quadratics, exponentials, logs, conics, sequences, series, sigma notation, binomial expansion.

14. Counselor Information:

This is the second half of the second course in Algebra. Coupled with Math 152A, the two courses are equivalent to Math 152. In combination, they are primarily intended for people who do not wish the more rapid pace of Math 152.

II. Student Learning Outcomes

The student will:

1. Show increased skill in setting up and solving word problems.
2. Solve problems involving the mathematical concepts of function and functional inverse.
3. Solve problems using concepts that may be useful for learning statistics: logarithms, sigma notation, and the binomial theorem.

III. Course Outline:

- A. Relations, Functions, and Graphs
- B. Quadratic Functions, Graphs, Equations, and Applications
- C. Inverse, Exponential, and Logarithmic Functions and Applications
- D. Conic Sections
- E. Sequences, Series, Sigma Notation, and the Binomial Theorem

IV. Course Assignments:

A. Reading Assignments

1. Selected chapters in assigned textbook, per instructor

B. Projects, Activities, and other Assignments

C. Writing Assignments

1. Selected homework from course outline

V. **Methods of Evaluation:**

- A. Exams
- B. Quizzes
- C. Homework

VI. **Methods of Instruction:**

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

VII. **Textbooks:**

Recommended

1. Bittinger, Ellenbogen, and Johnson *Elementary and Intermediate Algebra: Concepts and Applications, Volume 2* Second Edition, Pearson Custom Publishing, 2007
2. Hawkes Learning System (This is required for the self-paced course). *Introductory Algebra (software)* First Edition, Hawkes Learning System, 2006 ISBN: 0-918091-26-8

Supplemental

VIII. **Supplies:**

- A. Graph paper, \$2