



[Outline of the Course]

Course Description

This course covers the general principles of intermediate algebra and directly builds upon the materials learned in Algebra I and II (Math 084 and 085). The course expands upon working with functions and rational expressions. The course introduces logarithmic functions, imaginary numbers and piecewise functions.

Course Mechanics:

- 3-5 hours of lecture a week (or 5 hours of online video)
- Weekly or every other week quizzes
- 1-3 midterms (online or in class)
- One final (almost always in class)

A typical student should expect to spend about 3-5 hours in class (or watching online videos) and an additional 10-15 doing homework and studying per week.

Topics Covered and Required Prerequisite skills

Topic	Prereq required
Solving Quadratic Equations	Algebra I and II Working with Polynomials (focus on trinomials)
Complex Numbers	Algebra II Roots and Radicals
Working with Rational Expressions and Functions	Algebra II Intro to Functions
Functions and Transformations (focus on parabolas)	Algebra I Intro to Graphing
Exponent and Logs	Algebra I Exponents

[PREPARING FOR THE COURSE]

The following things can be done to help prepare for the course.

Prepare a notebook: Prepare a binder to keep all your returned math homework and quizzes in. The final is most likely comprehensive; having all your completed and graded work neatly grouped by topic will help a lot with studying for the final.

Purchase a scientific calculator: If you do not already own a scientific calculator, purchase one that allows you to see and edit your previous entry. Some calculators that can do this are: TI-30X IIS and the Ti-83 both from Texas instruments. Note that the Training Fund usually does not reimburse calculator purchase.

Brush up on your Algebra I and II: If you have old algebra books revisit: factoring quadratics, the quadratic equation, working with roots and radicals, working with functions, graphing equations of the form $y=mx+b$, and exponents.

[ADDITIONAL RESOURCES]

ONLINE INTERMEDIATE ALGEBRA MATERIALS:

[HTTPS://WWW.KHANACADEMY.ORG/MATH/ALGEBRA2](https://www.khanacademy.org/math/algebra2)

(NOTE: CONIC SECTIONS AND MATRIXES WILL MOST LIKELY NOT BE COVERED IN MATH 098)

ONLINE ALGEBRA I AND II REVIEW:

<https://www.khanacademy.org/math/algebra/introduction-to-algebra>

(Relevant topics: Multiplying and Factoring Expressions, Quadratic Equations, Functions,)

Training Fund Tutoring:

Both online and in-person group tutoring is available by request check out:

<http://healthcareerfund.org/tutoring/>