



**PREPARING FOR THE COURSE**

**Outline of Intermediate Algebra**

**Course Description**

This course covers the general principles of intermediate algebra and directly builds upon the materials learned in Beginning Algebra I and II. 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. Hybrid classes require more studying on your own.

**Topics Covered and Required Pre-req skills**

Topic	Pre-req required
Exponents and Scientific Notation	Algebra I Exponents
Factoring Polynomials	Algebra I Polynomials
Working with Rational Expressions	Basic Math Fractions
Graphing and Solving Quadratics Equations	Algebra I Intro to Graphing
Radical Expressions	Basic math Use of the Square Root Operator

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

**Prepare a notebook:** Prepare a binder for keeping all of your returned math homework and quizzes. The final is most likely comprehensive; having all of 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.

**Brush up on your Beginning Algebra I and II:** If you have old math books, revisit: factoring quadratics, the quadratic equation, working with roots and radicals, working with functions, graphing equations in the form of  $y=mx+b$ , 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 INTERMEDIATE ALGEBRA)

**ONLINE ALGEBRA I AND II REVIEW:**

[HTTPS://WWW.KHANACADEMY.ORG/MATH/ALGEBRA/INTRODUCTION-TO-ALGEBRA](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/>