



## Outline of Beginning Algebra I

### Course Description

This course covers the general principles of beginning algebra and directly builds upon the materials learned in Basic Math / Pre-Algebra. The course expands upon the student's ability to work with expressions by introducing variables. The student will also be introduced to: exponents, polynomials, solving one and two variable linear equations, and straight line graphing. There is also a strong emphasis in solving problems with application in a real-world scenario.

### 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 Prereq skills

Topic	Pre-req required
Use of variables in expressions involving adding, subtraction, multiplication and division.	Pre-Algebra Order of Operations
Operations with integers and rationales.	Pre-Algebra Order of Operations, Fractions
Graphing functions.	Pre-Algebra Fractions
Solving linear equations in one/two variable(s).	Pre-Algebra Order of Operations

## PREPARING FOR THE COURSE

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 Pre-algebra (Basic Math):** If you have old math books, revisit: Order of Operations, Negative Numbers, Fractions, and Factors and Multiples.

## ADDITIONAL RESOURCES

### ONLINE ALGEBRA I MATERIALS:

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

### ONLINE PRE-ALGEBRA REVIEW:

[HTTPS://WWW.KHANACADEMY.ORG/MATH/PRE-ALGEBRA](https://www.khanacademy.org/math/pre-algebra)

(RELEVANT TOPICS: ARITHMETIC PROPERTIES, FRACTIONS, FACTORS AND MULTIPLES, NEGATIVE NUMBERS)

### Beginning Algebra I (Math 081) Pretest

<http://www.seattlecentral.edu/learn/math/placement/AreYouReadyFor084.PDF>

Online test that looks at how much material was retained from math 081.

### Training Fund Tutoring:

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

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