



## Course Introduction

Algebra 1 is a mathematical science which strives to explain real world situations through mathematical symbols and operations. Throughout this course students will learn how to model real world situations through linear, quadratic and exponential representations. Students will also explore basic radical and rational functions.

## Course Description

Algebra 1 focuses on the introduction to and study of linear and quadratic equations, their graphs, and their properties. Major emphasis will be given to understanding patterns, underlying mathematical laws, and reasoning. In the transition to algebra, attention shifts from arithmetic operations to the application of the properties of these operations; all work will revolve around the process of solving a problem.

This is a yearlong course consisting of 12 units. Upon successful completion students will receive 1 credit towards high school graduation.

## Course Overview

Semester 1:

- Foundations for Algebra
- Solving Equations
- Solving Inequalities
- An Introduction to Functions
  
- Linear Functions
- Systems of Equations and Inequalities

Semester 2:

- Exponents and Exponential Functions
- Polynomials and Factoring
  
- Quadratic Functions and Equations
- Radical Expressions and Equations
- Rational Expressions and Functions
- Data Analysis and Probability

## Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back

order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

### Methods of Instruction

To help students **R.E.A.C.H** the course objectives each lesson is broken down into the following components:



The first component in each lesson is Ready. Whenever you see this icon, get your textbook, your notebook and a pen and get ready to learn. This component is designed as a preview of the lesson to get you ready to learn.



The second component in each lesson is Explore. Whenever you see this icon, you are going to explore the concepts a little deeper through video links provided by Pearson Success Net, your online textbook resource.



The third component in each lesson is Activity. Whenever you see this icon, get your textbook and get ready to read and then check your understanding with a brief activity.



The fourth component in each lesson is Closure. Whenever you see this icon, you should check to make sure you have learned the objective stated.



The fifth and final component in each lesson is Homework. Whenever you see this icon, get your textbook and notebook and complete the practice problems. It is essential not to skip your practice and that you properly label and keep all work. Your teacher may ask to view your homework at any time throughout this course.

## Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 40% Assignments
- 10% Participation (Discussion Posts, Synchronous Sessions)
- 10% Quizzes
  
- 25% Final Exam
- 15% Unit Tests