

1 Warning

Community College of Philadelphia is a firm adherent to the principle of academic freedom. In light of this, faculty are not required to follow a particular approach or a particular textbook for the courses they teach. Most faculty, however, have more or less uniform guidelines for specific courses, and indeed, many use a particular textbook or approach in order to conform to area institutions. Therefore, the sample syllabus found here is not binding to faculty, but represents a synthesis of what most faculty do or aspire to do when they teach a particular course. What follows should not be interpreted as a prescription, but rather, as a means to help the placement of our students in transfer institutions.

2 Catalogue Description

First course in algebra. Integer and rational arithmetic; algebraic expressions; linear equations and inequalities in one variable; rectangular coordinates; linear equations in two variables and their graphs; polynomials; factoring; quadratic equations. Credit will not apply toward graduation. Prerequisites: MATH 016.

3 Allotted Time

Math 017 is a 3-credit course. Courses at Community College of Philadelphia run for about **42 55**-minute periods. Instructors usually give three or four exams (generally lasting at least **55** minutes), and a 2-hour long final exam.

4 Topics Outline

- Fractions and operations with fractions.
- Decimals and operations with decimals.
- Signed numbers. Signed numbers in Algebra. Algebraic Expressions and operations.
- Linear Equations.
- Linear Equation Applications.
- Linear Inequalities.
- Rectangular Coordinate Systems
- Linear Systems in Two Variables.
- Polynomials in One Variable.
- Polynomial Division.
- Polynomials in Several Variables. Factoring Polynomials.

- Quadratic Equations.

5 Past Textbooks

- Alfred Brown's *Basic Mathematics*
- Marvin Bittinger's *Elementary Algebra Math 017*