

*Montgomery College - Department of Mathematics
Takoma Park/Silver Spring Campus*

**MA091 and MA091A - Elementary Algebra
0 Semester Hours**

Description A presentation of the basic concepts of algebra: linear equations in one and two variables including systems and graphing, linear inequalities, literal equations, integer exponents, polynomials, factoring, quadratic equations, and simple rational expressions. Applications are included throughout the course.

MA091 meets 3 hours each week.
MA091A meets 5 hours each week

Prerequisites A grade of A, B, C, or S in MA090, appropriate score on the mathematics assessment test, or consent of department.

MA091A is strongly recommended for students who have earned a grade of C in MA090 or who have never taken an algebra course or who are repeating MA091.

Assessment level: RD099/103.

Topics

- I. Solving linear equations and inequalities in one variable
- II. Solve literal equations for a specified variable
- III. Graphing linear equations in two variables
 1. Cartesian coordinate system
 2. Slope
 3. Deriving equations of lines
- IV. Solving systems of linear equations in two variables
- V. Exponents
- VI. Polynomials
 1. Basic operations with polynomials
- VII. Factoring
 1. Common factors
 2. Trinomials
 3. Difference of squares
- VIII. Rational expressions
 1. Basic operations
 2. Solving equations

IX. Radicals

1. Find square roots with and without a calculator

X. Quadratic equations

1. Solve by factoring
2. Solve by quadratic formula
3. Modeling real-world applications with linear, quadratic, and/or rational equations as well as systems of linear equations.

Introductory Algebra 3rd Edition by Elayn Martin-Gay. Prentice Hall Publishing Company, 2006.

Text