

**Catalog Description:**

Algebraic, rational, and radical expressions; functions and graphs; quadratic equations; absolute value; inequalities; and applications.

**Prerequisite:**

Math Placement Level S, a grade of C– or better in Math 1050, or credit for Math 75 or 1074.

**Exclusions:**

Not open to students with credit for any higher numbered math class, or for any quarter math class numbered higher than 75.

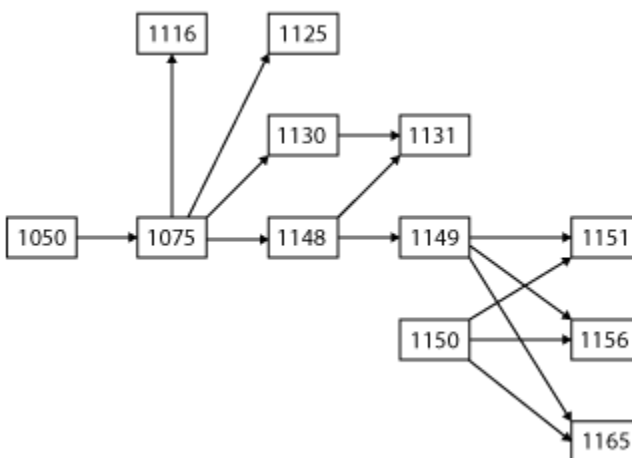
**Text:**

*Beginning and Intermediate Algebra (4<sup>th</sup> ed)*, OSU Custom version, Miller, O'Neill & Hyde, McGraw-Hill, ISBN 9781259541650

**Follow-up Courses:**

- Math 1116 for students in liberal arts or students in the precertification programs on regional campuses.
- Math 1125 for students intending to pursue a M.Ed. in early or middle childhood.
- Math 1130 College Algebra for Business
- Math 1148 Traditional College Algebra

**Sequencing Chart:**





**Topics List:**

**Ch. 4 Linear Inequalities**

- 4.1 Solving linear inequalities using addition & subtraction
- 4.2 Solving linear inequalities using multiplication & division
- 4.3 Solving compound inequalities
- 4.4 Solving absolute value equations & inequalities
- 4.5 Graphing systems of inequalities in two variables

**Ch. 6 Factoring Polynomials**

- 6.1 Introduction to factoring polynomials
- 6.2 Factoring trinomials of the form  $x^2 + bx + c$
- 6.3 Factoring trinomials of the form  $ax^2 + bx + c$
- 6.4 Factoring special binomials
- 6.5 Factoring by grouping; General strategies for factoring
- 6.6 Solving equations by factoring

**Ch. 9 Rational Functions**

- 9.1 Graphs of rational functions
- 9.2 Reducing rational expressions; Multiplying and dividing rational expressions
- 9.3 Adding and subtracting rational expressions
- 9.4 Combining operations; Complex rational expressions
- 9.5 Solving equations containing rational expressions
- 9.6 Inverse and joint variation; Other applications yielding equations with fractions

**Ch. 7 Solving Quadratic Equations**

- 7.1 Extraction of roots and properties of square roots
- 7.2 Solving quadratic equations by completing the square
- 7.3 The quadratic formula
- 7.4 Applications of quadratic equations
- 7.5 Complex numbers; Solving quadratic equations with complex solutions

**Ch. 8 Functions: Linear, Absolute Value, and Quadratic**

- 8.1 Functions and representations of functions
- 8.2 Linear Functions
- 8.3 Absolute value functions
- 8.4 Quadratic functions

**Ch. 10 Square Root & Cube Root Functions and Rational Exponents**

- 10.1 Evaluating radical expressions
- 10.2 Adding & subtracting radical expressions
- 10.3 Multiplying & dividing radical expressions
- 10.4 Solving equations containing radical expressions
- 10.5 Rational exponents & radicals