

**Mathematics 075**  
**A, W, Sp, Su**

**4 cr.**

**Pre-College Mathematics II**

**Prerequisite:**

Mathematics 050, or Course Code S on Math Placement Test. Not open to students with credit for any math course except 050.

**Catalog Description:**

Systems of equations, arithmetic of polynomials, factoring, fractional equations, variation, quadratic equations, functions, graphs, right angle trigonometry.

**Purpose of Course:**

To meet the needs of students entering the University with Course Code S on Math Placement Test, or with credit for 050. Completion of Math 075 is required for entry into numerous degree granting colleges; however, credit for 075 will not count toward graduation in any degree granting program. It is designed for students continuing in Math 105 or 116.

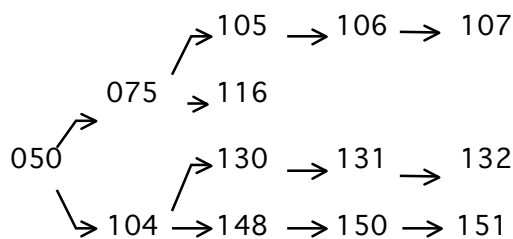
**Follow-up Courses:**

Math 104 for students switching to science, computer science, business or engineering curriculum.

Math 105 for students intending to pursue MEd in early or middle childhood.

Math 116 for students in liberal arts or students in the precertification programs on regional campuses.

**Sequencing Chart:**



**Text:**

Beginning Algebra, (4th ed.) Martin-Gay

**Continued.**

**Topics List & Sample Syllabus**

<b>Sections</b>	<b>Topics</b>
3.4–3.6	Graphing Slope and rate of change Slope-intercept form Point-slope form
4.1–4.4	Solving systems of linear equations Solving systems of linear equations by graphing Solving systems of linear equations by substitution Solving systems of linear equations by addition Systems of linear equations and problem solving
6.1–6.2	Factoring polynomials Greatest common factor and factoring by grouping Factoring trinomials
<i>Review and first midterm</i>	
6.3–6.5	Factoring polynomials Factoring trinomials Factoring binomials Solving quadratic equations by factoring
7.1–7.6	Rational expressions Simplifying rational expressions Multiplying and dividing rational expressions Adding and subtracting rational expressions Least common denominator Solving equations containing rational expressions Ratio and proportion Rational equations and problem solving Proportion and problem solving with rational expressions
<i>Review and second midterm</i>	
8.1–8.7	Roots and radicals Introduction to radicals Simplifying radicals Adding and subtracting radicals Multiplying and dividing radicals Solving equations containing radicals Radical equations and problem solving Rational exponents
9.1–9.3	Quadratic equations Solving quadratic equations by the square root method Solving quadratic equations by completing the square Solving quadratic equations by the quadratic formula

*Review and third midterm*

*Review and final exam*