

MATH 096 – Intermediate Algebra (3 Credits)

DESCRIPTION:

Topics include factoring polynomials, rational expressions and equations, radical expressions and equations, quadratic equations, graphs, and applications. A comprehensive, proctored, departmental final exam will be given.

Prerequisite: MATH 095 or MATH 095E with a Grade of C or Better; or a Satisfactory ACT/SAT/ALEKS PPL/Placement Test Score

OUTCOMES:

At the end of the course, students will be able

- a. Work with functions and function notation
- b. Graph functions
- c. Factor polynomials
- d. Work with rational expressions and solve rational expression equations
- e. Perform arithmetic on irrational numbers and solve radical equations
- f. Solve quadratic equations
- g. Apply and extend all concepts

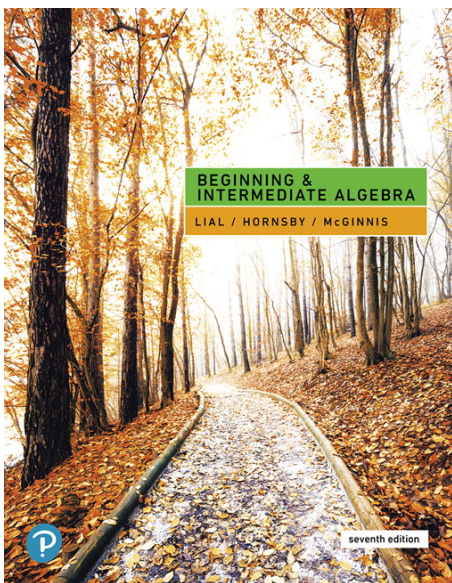
TEXT:

Title: *Beginning and Intermediate Algebra, 7th Edition;

Authors: Lial, Hornsby, and McGinnis;

Publisher: Pearson;

ISBN-13: Digital - 9780135961704, Unbound with Access Card – 9780135989944, Cloth Package with MyLab Math – 9780135989920



*Note: Full-time instructors have the right to use no text or a different text.

OUTLINE:

- **Factoring:** GCF, Factoring by Grouping, Factoring Trinomials, Special Techniques, Solving Quadratic Equations Using the Zero-Factor Property (Lial/Hornsby/McGinnis, Sections 5.1-5.5)
- **Rational Expressions:** Fundamental Properties, LCD, Arithmetic with Rational Expressions, Complex Fractions, Solving Equations with Rational Expressions, Applications (Lial/Hornsby/McGinnis, Sections 6.1-6.7)
- **Functions:** Relations, Functions, Notation, Linear Functions (Lial/Hornsby/McGinnis, Sections 9.1-9.2)
- **Roots and Radicals:** Radical Expressions, Graphs, Rational Exponents, Simplifying Radicals, the Distance Formula, Circles, Arithmetic with Radical Expressions, Equations with Radicals, Complex Numbers (Lial/Hornsby/McGinnis, Sections 10.1-10.7)
- **Quadratics:** Solving Quadratic Equations by the Square Root Property/Completing the Square/Quadratic Formula, Applications (Lial/Hornsby/McGinnis, Sections 11.1-11.3, 11.5, supplement with 5.6, as necessary)

EVALUATION:

Grades may be determined by student performance in one or more of the following areas: in-class tests, take-home tests, homework assignments, quizzes, special projects, papers, attendance, and class participation. Degree of importance and types of assessment used will depend on the instructor.

This course DOES NOT satisfy the Math component of a degree or certificate program at CSN.