MATH 026

Course Description: 0l:640:026. Intermediate Algebra (E3)
Prerequisite: 01:640:025 or demonstrated proficiency in Elementary Algebra. Absolute value equations and inequalities; functions; linear graphs and systems; rational and polynomial expressions; radical expressions and rational exponents; quadratic functions, graphs, equations, and inequalities; topics in analytic geometry

SYLLABUS

Text: Hirsch/Goodman, <u>Understanding Intermediate Algebra, 6th Ed.</u>, 2006: Thomson
Brooks/Cole Publishing Co.

Periods	Sections	Topics
½	1.1 - 1.5	(Course orientation) Real numbers: their operations and properties. The number line. Algebraic expressions. Translating sentences into algebraic form. Basic first-degree equations and inequalities.
2	2.1 - 2.4	First-Degree equations and Inequalities and their applications. Interval notation, Absolute Value Equations and Inequalities.
3	3.1 - 3.5	Graphing Straight Lines. Functions.
2½	4.1 - 4.4	Equations of a Line. Linear Systems in Two variables. Graphing Linear Inequalities in Two Variables.
2	5.1 - 5.5	Polynomial functions. Operations with Polynomials. Factoring.
1		**EXAM I**
1	5.6 - 5.7	Solving polynomial equations by factoring. Polynomial division
3	6.1 – 6.8	Rational Expressions and Functions. Operations with rational expressions. Rational and literal equations, and their applications.
2	7.1 - 7.3	Integer Exponents. Scientific Notation. Rational Exponents (and radical notation).
3	7.4 - 7.8	Radical expressions. Operations with radicals. Radical equations. Complex Numbers
1		**EXAM II**

2	8.1 - 8.4	Quadratic Functions. Quadratic equations and their applications.
1	8.5	Equations reducible to quadratic form.
1	8.6	Graphing Quadratic Functions.
1	8.7	Quadratic and Rational Inequalities.
1	8.8	The Distance Formula: Circles.
1		Catch-up and Review.