College Mathematics Preparatory Course

Developed in collaboration between Vernon College and Wichita Falls and Region IX

Student Learning Outcomes

1. Define, represent, and perform operations on real and complex numbers.
2. Recognize, understand, and analyze features of a function.
3. Recognize and use algebraic properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions.
4. Identify and solve absolute value, polynomial, radical, and rational equations.
5. Identify and solve absolute value linear inequalities.
6. Model, interpret, and justify mathematical ideas and concepts using multiple representations.
7. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

Target Students: This course is appropriate for 12th grade students who are not Texas Success Initiative clear in math, meaning that the student is not ready to perform entry-level college coursework in mathematics. TSI is indicated by _____. This course is designed to advance college and career readiness.

Recommended Pre-requisites: Satisfactory completion of Algebra I and Algebra I EOC exam, Geometry, and Algebra II.

Course Description: _____

Course Outline:

Suggested Time	Unit of Study	Topics	Learning Outcomes
3 weeks	Introduction to Functions	Multiple Representations Transferring between modes Drawing conclusions Function characteristics Domain/Range Rate of Change Interval Notation	2, 6, 7
3 weeks	Polynomials	Multiplication Factoring Grouping Trinomials With coeffieent of 1 With coefficient not = 1 Special cases	3, 4
2 weeks	Solving Equations	Factoring Polynomial Quadratic Square Root Property	3,
2 weeks	Systems of Equations	Elimination Substitution Problem Solving Application Problems	3, 7
6 weeks	Functions	Solve, Graph, Characteristics, and Application of: • Linear • Absolute Value • Inequalities • Quadratic • Polynomial • Radical • Rational	2, 5
2 weeks	Real and Complex Numbers	Define Operation (+, -, x, ÷)	1
2 weeks	Review	Geometry Measurement Statistical Measures Probability	6, 7