Strategic Learning for High School Mathematics Syllabus

Course Description/Goals:

  This course is intended to create strategic mathematical learners from under-prepared mathematics students. The basic understanding will stimulate students to think about their approach to mathematical learning. These basic understandings will include identifying errors in the teaching and learning process, input errors, physiological concerns, and key cognitive skills. The essential knowledge and skills will foster a deeper understanding of the task of learning mathematical concepts, including and targeting the concepts in the Algebra 1 curriculum. Use of personal data and statistical analysis will establish relevance and aid in creation of individualized learning plans (ILP's). This course is recommended for students concurrently enrolled in Algebra 1.

Course TEKS/Objectives:

  The mathematical learning objectives of Strategic Learning embed the knowledge and skills from Algebra 1 to provide support for success in Algebra 1 coursework and on the Algebra 1 STAAR exam. Algebra 1 skills include: linear, quadratic, and exponential functions and their related transformations, equations, and associated solutions. Students will connect functions and their associated solutions in both mathematical and real-world situations. Students will use technology to collect and explore data and analyze statistical relationships. In addition, students will study polynomials of degree one and two, radical expressions, sequences, and laws of exponents. Students will generate and solve linear systems with two equations and two variables and will create new functions through transformations.
https://tea.texas.gov/sites/default/files/ch111c.pdf

Course Outline:

Semester 1	Semester 2
-Learning from Mistakes -Influences on Learning -Critical Thinking and Curiosity -Academic Behaviors and Study Habits -Solving Equations and Inequalities -Functions and Models -Linear Functions and Features -Linear Equations and Inequalities	Learning from Mistakes -Influences on Learning -Critical Thinking and Curiosity -Academic Behaviors and Study Habits -Exponential Functions -Polynomials -Quadratics