CFISD Advanced Algebra Scope and Sequence

(2025–2026)

Course Description

In Independent Study in Mathematics – Advanced Algebra, students will extend their mathematical understanding beyond the Algebra II level in a specific area or areas of mathematics. In Advanced Algebra, students will study basic algebraic operations, solving linear equations and inequalities, laws of integer exponents, factoring, rational expressions, the Cartesian coordinate system, graphing lines, finding equations of lines and solving linear systems. In addition, special products and factoring, rational expressions and equations, rational exponents, radicals, radical equations, quadratic equations, absolute value equations and inequalities, complex numbers, equations of lines, an introduction to the function concept, and graphing. Students will use technology, specifically the graphing calculator, to collect and explore data.

Texas Essential Knowledge and Skills: Independent Study in Mathematics – Advanced Algebra

First Semester (81 Days)

1st Grading Period

Unit	Start Date	End Date
Exponents and Polynomials	Aug. 13, 2025	Sep. 11, 2025
Factoring	Sep. 12, 2025	Oct. 2, 2025
Rational and Radical Expressions	Oct. 3, 2025	Oct. 9, 2025

2nd Grading Period

Unit	Start Date	End Date
Rational and Radical Expressions	Oct. 15, 2025	Nov. 7, 2025
* Linear Functions	Nov. 10, 2025	Dec. 18, 2025

Last updated: May 15, 2025

Second Semester (92 Days)

3rd Grading Period

Unit	Start Date	End Date
Equations and Problem Solving	Jan. 6, 2026	Feb. 6, 2026
Inequalities and Absolute Value	Feb. 9, 2026	Feb. 26, 2026
Solving Systems of Linear Equations	Feb. 27, 2026	Mar. 6, 2026

4th Grading Period

Unit	Start Date	End Date
Solving Systems of Linear Equations	Mar. 16, 2026	Mar. 23, 2026
Quadratic Equations	Mar. 24, 2026	Apr. 21, 2026
*Rational and Radical Equations	Apr. 22, 2026	May 28, 2026

Notes

* Includes time for Final Exams.

**The length of each unit is a specific number of days, but it is understood that there is a range of +/- a day. The purpose of the flexibility is meant to allow teachers the opportunity to plan for the needs of their students and to accommodate re-teaching or review when necessary. If pre-assessment indicates student mastery could be obtained in a fewer number of days, the additional time could be used for extension or carried into the next unit.

Instructional Materials

Beginning and Intermediate Algebra

(Sixth Custom Edition for Lone Star College – Cy Fair)

Pearson