

Independent Study in Mathematics - Advanced Algebra

Scope and Sequence 2026-2027

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](#)

Instructional Units	Days**	
First Semester (80 days)	Start Date	End Date
1st Grading Period	08/12/2026	10/08/2026
Exponents and Polynomials	08/12/2026	09/10/2026
Factoring	09/11/2026	10/08/2026
*2nd Grading Period	10/19/2026	12/18/2026
Rational and Radical Expressions	10/19/2026	11/17/2026
*Linear Functions	11/18/2026	12/18/2026
Second Semester (93 days)	Start Date	End Date
3rd Grading Period	01/05/2027	03/11/2027
Equations and Problem Solving	01/05/2027	02/05/2027
Inequalities and Absolute Value	02/08/2027	02/24/2027
Solving Systems of Linear Equations	02/25/2027	03/11/2027
*4th Grading Period	03/22/2027	05/27/2027
Quadratic Equations	03/22/2027	04/16/2027
*Rational and Radical Equations	04/19/2027	05/27/2027

* 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 Material(s):

Beginning and Intermediate Algebra
(Sixth Custom Edition for Lone Star College – Cy Fair)
Pearson