

Algebra 2 Curriculum Map

Mr. Lovely, 2009 – 2010

TOPIC & TEXTBOOK CHAPTERS	Duration	Month(s)
Unit 1: Algebra, Functions & Relations, Linear Functions Chapters 1, 2 & 3: Axioms, Expressions, Equations, Inequalities, Polynomials, Four Faces of a Function, Graphs, Linear Functions, Linear Modeling	4 wks	Aug/Sep
Unit 2: Systems of Linear Equations and Inequalities Chapter 4: Linear Systems, Solution of Systems, Second-Order Determinants, Function Terminology, Systems of Linear Equations with Three or More Variables, Augmented Matrices, Higher-Order Determinants, Systems of Linear Inequalities, Linear Programming	4 wks	Sep/Oct
Unit 3: Quadratic Functions and Complex Numbers Chapter 5: Graphs of Quadratic Functions, x-Intercepts, Quadratic Formula, Imaginary and Complex Numbers, Evaluating Quadratic Functions, Quadratic Modeling	3 wks	Oct
Unit 4: Exponential and Logarithmic Functions Chapter 6: Exponential Functions, Exponentiation, Powers and Radicals, Scientific Notation, Solving Exponential Equations, Logarithms, Properties of Logarithms, Inverses of Functions, Exponential Modeling	4 wks	Oct/Nov
Unit 5: Rational Algebraic Functions Chapter 7: Rational Functions, Graphs, Asymptotes, Discontinuities, Special Products, Factoring, Long Polynomial Division, Factoring Higher Degree Polynomials (Factor Theorem), Products, Quotients, Sums and Differences of Rational Expressions, Fractional Equations, Variation Functions	4 wks	Nov/Dec
Unit 6: Irrational Algebraic Functions Chapter 8: Irrational Functions, Graphs, Radicals and Simple Radical Form, Radical Equations, Variation Functions	2 wks	Jan
Unit 7: Quadratic Relations and Systems Chapter 9: Quadratic Relations, Circles, Ellipses, Hyperbolas, Parabolas, Equations, xy-Terms, Systems of Quadratics	3 wks	Jan/Feb
Unit 8: Higher-Degree Functions and Complex Numbers Chapter 10: Higher-Degree Functions, Complex Numbers, Quadratic Equations from their Solutions, Graphs, Synthetic Substitution, Descartes' Rule, Upper Bound Theorem, Modelling	2 wks	Feb
Unit 9: Probability and Data Analysis Chapter 12: Probability, Counting Principles, Permutations, Combinations, Properties of Probability, Statistics and Data Analysis	3 wks	Feb/Mar
Unit 10: Sequences and Series / CSAPs Chapter 11: Arithmetic and Geometric Sequences, Arithmetic and Geometric Means, Arithmetic and Geometric Series, Factorials, Binomial Series, Binomial Formula	4 wks	Mar/Apr
Unit 11: Trigonometry Chapters 13, 14 & 15: Periodic Functions, Arcs and Rotation, Trigonometric and Circular Functions, Right Triangle Problems, Oblique Triangles, Law of Cosines, Law of Sines, Area of a Triangle, Real World Triangle Problems	5 wks	Apr/May