

## OLEAN HIGH SCHOOL

**Course Name: Integrated Algebra**

**Text : Arlington Algebra Project**

**<http://www.teacherweb.com/ny/arlington/algebraproject/hf0.stm>**

**Other Resources: Coach Review Book**

### Grades 9-12

Month	Topic Content	Skills / Concepts	Major Assessments	Learning Standards	Resource/Text Page
<b>Sept.</b>	Unit 1 – Algebraic Foundations	Real Number System, Real Number Properties, Square Roots and Irrational Numbers, Square Root Division, Combining Square Roots with Addition and Subtraction, Evaluating Algebraic Expressions, More Evaluating Algebraic Expressions, Absolute Value, Introduction to Inequalities	Section Quizzes  Unit 1 Test	A.N.1, A.N.2, A.N.3, A.N.6	Arlington Algebra Project Unit 1 Lessons 1-9
	Unit 2 – Linear Functions	Coordinate Plane and Linear Equations, Slope and Parallel Lines, Slope as Rate of Change, Writing Equations of Lines	Section Quizzes	A.A.32, A.A.33, A.A.34, A.A.35, A.A.36, A.A.38, A.A.39, A.G.4, A.R.1	Arlington Algebra Project Unit 2 Lessons 1-4
<b>Oct</b>	Unit 2 – Linear Functions	Graphing Lines, Horizontal and Vertical Lines, Modeling with Linear Functions, Solving Linear Systems Graphically, Lines of Best Fit, Correlation Coefficient, Absolute Value	Section Quizzes  Unit 2 Test	A.N.1, A.N.3, A.N.5, A.N.6, A.N.32, A.G.5, A.G.6, A.A.36, A.A.38, A.S.7, A.S.8, A.S.12, A.S.17	Arlington Algebra Project Unit 2 Lessons 5-11

<b>Oct..</b>	Unit 3 – Linear Algebra	Solving Simple Linear Equations, Combining Like Terms, Solving Linear Equations with Variables on Both Sides, Distributive Property in Solving Linear Equations, More Practice Solving Equations, Linear Word Problems, Consecutive Integer Word Problems	Section Quizzes	A.A.3, A.A.4, A.A.5, A.A.6, A.A.22	Arlington Algebra Project Unit 3 Lesson 1-7
<b>Nov.</b>	Unit 3 – Linear Algebra	Literal Equations, Solving Linear Inequalities, Graphing Solutions to Linear Equations, Inequality Word Problems	Section Quizzes Unit 3 Test	A.A.6, A.A.23, A.A.24, A.A.29, A.G.6	Arlington Algebra Project Unit 3 Lessons 8-11
	Unit 4 – Linear Systems	Guess and Check, Solving Linear Systems by Substitution, Solving Linear Systems by Elimination, More Solving Linear Systems Algebraically, Word Problems and Linear Systems, More Word Problems and Linear Systems, Solving Systems of Linear Inequalities	Section Quizzes Unit 4 Test	A.A.7, A.A.10	Arlington Algebra Project Unit 4 Lessons 1-7
<b>Dec.</b>	Unit 5 – Quadratic Functions	Properties of the Graph of a Quadratic Function, Graphing Quadratic Functions with a Calculator, Graphing Quadratic Functions without a Calculator, Solving Quadratic Equations, Solving Linear-Quadratic Systems Graphically, Applications of Quadratic Functions	Section Quizzes Unit 5 Test	A.A.11, A.A.28, A.A.41, A.G.4, A.G.8, A.G.9	Arlington Algebra Project Unit 5 Lessons 1-7
	Unit 6 – Quadratic Algebra	Properties of Exponents, Zero and Negative Exponents, Combining Like Terms, Multiplying a Polynomial by a	Section Quizzes	A.A.12, A.A.13, A.A.20	Arlington Algebra Project Unit 6 Lessons 1-6

<b>Dec.</b>	Unit 6 – Quadratic Algebra	Monomial, Multiplying Polynomials, Greatest Common Factors	Section Quizzes	A.A.12, A.A.13, A.A.20	Arlington Algebra Project Unit 6 Lessons 1-6
<b>Jan.</b>	Unit 6 – Quadratic Algebra	Factoring Difference of Two Perfect Squares, Factoring Trinomials, Factoring Trinomials Completely, The Zero Product Law, More with the Zero Product Law, Using Quadratic Functions to Factor, Solving Incomplete Quadratic Functions, Solving Quadratic Word Problems, Solving Linear-Quadratic Systems, More Complete Factoring Practice	Section Quizzes  Unit 6 Test	A.A.19, A.A.20, A.A.27, A.G.9	Arlington Algebra Project Unit 6 Lessons 7-17 and S1
<b>Feb.</b>	Unit 7 – Rational Algebra	Operations with Numerical Fractions, Evaluating Rational Expressions, Writing Equivalent Rational Expressions, Simplifying More Complex Rational Expressions, Multiplying and Dividing Rational Expressions, Adding and Subtracting Rational Expressions, Solving Rational Equations, Direct Variation, Similar Polygons	Section Quizzes  Unit 7 Test	A.A.15, A.A.16, A.A.17, A.A.18, A.A.25, A.A.26, A.N.5, A.M.1	Arlington Algebra Project Unit 7 Lessons S1 and 1-10
	Unit 8 – Right Triangle Trigonometry	The Pythagorean Theorem, Converse of the Pythagorean Theorem, Similar Right Triangles, Introduction to Trigonometry, Trigonometry and the Calculator, Solving For Missing Sides, Solving For Missing Angles, Applied Trigonometry	Section Quizzes  Unit 8 Test	A.A.42, A.A.43, A.A.44, A.A.45, A.N.5	Arlington Algebra Project Unit 8 Lessons 1-8

<b>Mar.</b>	Unit 9 - Measurement	Introduction to Percents, More on Percents, Applications of Percents, Introduction to Exponential Functions, Exploring Graphs of Exponential Functions, Scientific Notation, Areas of Shaded Regions, Finding Areas of Polygons on a Graph, Areas of a Bounded Region, Volume, Error in Measurement	Section Quizzes Unit 9 Test	A.N.4, A.N.5, A.G.1, A.G.2, A.G.4, A.M.3	Arlington Algebra Project Unit 9 Lessons 1-11
<b>Apr.</b>	Unit 10 – Statistics	Measures of Central Tendency, More Work With the Mean, The 5 Number Summary, Percentiles, Frequency Histograms, Cumulative Frequency Histograms, Bivariate Data Analysis, Statistics on the Graphing Calculator	Section Quizzes Unit 10 Test	A.S.2, A.S.4, A.S.5, A.S.6, A.S.7, A.S.8, A.S.9, A.S.11	Arlington Algebra Project Unit 10 Lesson 1-8
<b>May</b>	Unit 11 – Sets and Counting Theory	Introduction to Sets, Interval Notation and Infinite Sets, Subset, Empty Set, Complement, Union and Intersection, Venn Diagrams, Fundamental Counting Principle, Permutations and Counting, Permutations and Repetition	Section Quizzes Unit 11 Test	A.A.29, A.A.30, A.A.31, A.N.7, A.N.8, A.S.19	Arlington Algebra Project Unit 11 Lesson 1-8
	Unit 12 – Probability	Basic Probability Concepts, More Complex Probability Problems, Independent Events, Dependent Events, Mutually Exclusive Events, Non-Mutually Exclusive Events	Section Quizzes Unit 12 Test	A.S.18, A.S.19, A.S.20, A.S.21, A.S.22, A.S.23	Arlington Algebra Project Unit 12 Lesson 1-6
<b>June</b>	Regents Review	All topics	Review Book Quizzes	All areas	Coach Algebra Review Book

