

Subject: College Algebra		Grade: High School (11-12)	
Month	Unit / Theme	Content	Assessment
September	Unit1: Algebra Skill Review	<ul style="list-style-type: none"> <li>Algebra Models in the Real</li> <li>Real Numbers</li> <li>Integer Exponents</li> <li>Rational Exponents and Radicals</li> </ul>	<ul style="list-style-type: none"> <li>Homework</li> <li>Quizzes</li> <li>Unit Test</li> </ul>
October	Unit 1: Algebra Skill Review  Unit 2: Equations and Inequalities	<ul style="list-style-type: none"> <li>Algebraic Expressions</li> <li>Factoring</li> <li>Rational Expressions</li> <li>Linear Equations</li> <li>Modeling with Linear Equations</li> <li>Quadratic Equations</li> </ul>	<ul style="list-style-type: none"> <li>Homework</li> <li>Quizzes</li> <li>Unit Test</li> </ul>
November	Unit 2: Equations and Inequalities  Unit 3: Coordinates and Graphs	<ul style="list-style-type: none"> <li>Complex Numbers</li> <li>Linear and Quadratic Inequalities</li> <li>Absolute Value Equations and Inequalities</li> <li>The Cartesian Plane</li> <li>Graphs of Equations in Two Variables (incl. non-linear)</li> <li>Symmetry to Sketch Graphs</li> <li>Distance and Midpoint Formulas</li> </ul>	<ul style="list-style-type: none"> <li>Homework</li> <li>Quizzes</li> <li>Unit Test</li> </ul>
December	Unit 3: Coordinates and Graphs  Unit 4: Functions	<ul style="list-style-type: none"> <li>Lines</li> <li>Solving Equations and Inequalities Graphically</li> <li>Modeling Variation</li> <li>Definition of Function</li> <li>Classify Relations</li> </ul>	<ul style="list-style-type: none"> <li>Homework</li> <li>Quizzes</li> <li>Unit Test</li> </ul>
January	Unit 4: Functions	<ul style="list-style-type: none"> <li>Graphs of Functions; Domain, Range; Odd, Even, or Neither</li> <li>Increasing and Decreasing Functions; Average Rate of Change</li> <li>Transformations of Functions</li> <li>Quadratic Functions; Maxima and Minima</li> <li>Combining Functions</li> <li>One-to-One Functions and Their Inverses</li> </ul>	<ul style="list-style-type: none"> <li>Homework</li> <li>Quizzes</li> <li>Unit Test</li> </ul>

February	Unit 5: Polynomial and Rational Functions	<ul style="list-style-type: none"> <li>• Polynomial Functions and Their Graphs</li> <li>• Dividing Polynomials</li> <li>• Real Zeros of Polynomials</li> <li>• Complex Zeros and the Fundamental Theorem of Algebra</li> <li>• Rational Functions</li> </ul>	<ul style="list-style-type: none"> <li>• Homework</li> <li>• Quizzes</li> <li>• Unit Test</li> </ul>
March	Unit 6: Exponential and Logarithmic Functions	<ul style="list-style-type: none"> <li>• Exponential Functions (incl. Compound Interest)</li> <li>• Logarithmic Functions</li> <li>• Laws of Logarithms</li> <li>• Exponential and Logarithmic Equations</li> <li>• Modeling with Exponential and Logarithmic Functions (incl. Growth/Decay)</li> </ul>	<ul style="list-style-type: none"> <li>• Homework</li> <li>• Quizzes</li> <li>• Unit Test</li> </ul>
April	Unit 7: Simultaneous Equations and Inequalities	<ul style="list-style-type: none"> <li>• Systems of Equations</li> <li>• Systems of Linear Equations in Two Variables</li> <li>• Systems of Equations in Several Variables</li> <li>• Systems of Inequalities</li> <li>• Partial Fractions</li> </ul>	<ul style="list-style-type: none"> <li>• Homework</li> <li>• Quizzes</li> <li>• Unit Test</li> </ul>
May	Unit 8: Conic Sections	<ul style="list-style-type: none"> <li>• Parabolas</li> <li>• Ellipses</li> <li>• Hyperbolas</li> <li>• Shifted Conics</li> </ul>	<ul style="list-style-type: none"> <li>• Homework</li> <li>• Quizzes</li> <li>• Unit Test</li> </ul>
June	Course Final Exam	<ul style="list-style-type: none"> <li>• Review</li> </ul>	