








# Cornwall-Lebanon School District Curriculum Overview

## College Algebra

 length of time in weeks	Concepts & Competencies	Common Assessments	Academic Standards (PA Core if applicable)
Unit 1  4	<p style="text-align: center;"><b><u>Equations and Inequalities</u></b></p> <p>Students will solve linear, rational, and absolute value equation. Students will apply their solving skills to real life application problems. Students will graph functions in the Cartesian Coordinate System. Students will solve radical and quadratic equations, including those with complex solutions. Students will solve linear and absolute value inequalities.</p>	<ul style="list-style-type: none"> <li>➤ Quiz: Solving Equations and Applications</li> <li>➤ Quiz: Graphing Equations and Circles</li> <li>➤ Quiz: Radical and Quadratic Equations</li> <li>➤ Unit 1 Exam</li> </ul>	CC.2.1.HS.F.6 CC.2.1.HS.F.7 CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.D.10 CC.2.2.HS.C.5
Unit 2  3	<p style="text-align: center;"><b><u>Functions and Their Graphs</u></b></p> <p>Students will identify functions and determine domain and range from graphs, tables, and equations. Students will evaluate functions. Students will find and simplify the difference quotient. Students will be able to graph functions and perform transformations. Students will perform operations with functions including inverses. Students will construct functions with variation.</p>	<ul style="list-style-type: none"> <li>➤ Quiz: Functions</li> <li>➤ Quiz: Difference Quotient and Graphing</li> <li>➤ Mid-Term: Cumulative</li> <li>➤ Unit 2 Exam</li> </ul>	CC.2.2.HS.D.7 CC.2.2.HS.C.1 CC.2.2.HS.C.2 CC.2.2.HS.C.3 CC.2.2.HS.C.4 CC.2.2.HS.C.5 CC.2.2.HS.C.6
Unit 3  3	<p style="text-align: center;"><b><u>Polynomial and Rational Functions</u></b></p> <p>Students will solve quadratic functions and inequalities. Students will determine zeros of polynomial functions. Students will divide polynomials. Students will graph polynomial and rational functions and inequalities.</p>	<ul style="list-style-type: none"> <li>➤ Quiz: Solving Quadratic Functions and Inequalities</li> <li>➤ Quiz: Dividing Polynomials</li> <li>➤ Unit 3 Exam</li> </ul>	CC.2.2.HS.D.3 CC.2.2.HS.D.4 CC.2.2.HS.D.5 CC.2.2.HS.D.6 CC.2.2.HS.D.10 CC.2.2.HS.C.5
Unit 4  3	<p style="text-align: center;"><b><u>Exponents and Logarithmic Functions</u></b></p> <p>Students will solve exponential functions and their applications. Students will solve logarithmic functions and their applications. Students will apply the properties of logarithms. Students will solve exponential and logarithmic equations.</p>	<ul style="list-style-type: none"> <li>➤ Quiz: Exponential Functions</li> <li>➤ Quiz: Logarithmic Functions</li> <li>➤ Unit 4 Exam</li> </ul>	CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.C.5

<b>Unit 5</b> 	<p style="text-align: center;"><b><u>Systems of Equations and Inequalities</u></b></p> <p>Students will solve systems of linear equations in two variables. Students will solve systems of linear equations in three or more variables.</p>	<ul style="list-style-type: none"> <li>➤ Unit 5 Exam</li> </ul>	<p>CC.2.2.HS.D.8  CC.2.2.HS.D.9  CC.2.2.HS.D.10  CC.2.2.HS.C.5</p>
<b>Unit 6</b> 	<p style="text-align: center;"><b><u>Matrices</u></b></p> <p>Students will use matrices to solve linear systems. Students will perform operations with matrices. Students will determine the inverse of a matrix.</p>	<ul style="list-style-type: none"> <li>➤ Unit 6 Exam</li> <li>➤ Final: Cumulative</li> </ul>	<p>CC.2.2.HS.D.9  CC.2.2.HS.C.5</p>