

**Please Note:**

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course are best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

**Publisher Resource:**

[Precalculus with Limits](#) (student logins will be provided)

[Videos by Chapter and Section](#)

**Other Course Supplemental Resources:**

[LarsonPrecalculus.com](#) (videos, pre- and post- tests by chapter)

[Khan Academy Pre-Calculus](#)

[Free Pre-Calculus Math Videos](#)

[IXL Pre-Calculus](#)

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 1 Aug 10 – Oct 13	1 8/10 - 8/11	<ul style="list-style-type: none"> <li>• Introductions</li> <li>• Syllabus</li> </ul>	
	2 8/14 – 8/18	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.1 – Radian and Degree Measure</li> <li>• Section 4.1 – Arc Length, Terminal and Coterminal angles</li> <li>• Section 4.3 – Right Triangle Trigonometry</li> <li>• Section 4.2 – Unit Circle</li> </ul>	Section 4.1 – <a href="#">Khan Academy - Radians and degrees</a> Section 4.1 – <a href="#">Khan Academy - Radians and degrees</a> Section 4.3 – <a href="#">Khan Academy - Special right triangles proof</a> Section 4.2 – <a href="#">Khan Academy - Deprecated Radians on the unit circle</a>
	3 8/21 – 8/25	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.3 – Identities</li> <li>• Section 4.4 – Trigonometric Functions of Any Angle</li> <li>• Assessment</li> </ul>	Section 4.3 – <a href="#">Khan Academy - Special right triangles proof</a>
	4 8/28 – 9/1	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.5 – Graphs of Sine and Cosine Functions</li> <li>• Assessment</li> </ul>	Section 4.5 – <a href="#">Khan Academy - Graph sinusoidal functions</a>
	5 9/5 – 9/8	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.6 – Graphs of Other Trigonometric Functions</li> <li>• Assessment</li> </ul>	Section 4.6 – <a href="#">Khan Academy - Graph of <math>y=\tan(x)</math></a>
	6 9/11 – 9/15	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.7 – Inverse Trigonometric Functions</li> <li>• Assessment</li> </ul>	Section 4.7 – <a href="#">Khan Academy - Trigonometric equations and identities</a>
	7 9/18 – 9/22	<b>Unit 1 – Chapter 4 – Trigonometric Functions</b> <ul style="list-style-type: none"> <li>• Section 4.8 – Applications and Models</li> <li>• Review</li> <li>• Assessment</li> </ul>	
	8 9/25 – 9/29	<b>Unit 2 – Chapter 5 – Analytic Trigonometry</b> <ul style="list-style-type: none"> <li>• Section 5.1 – Using Fundamental Identities</li> <li>• Section 5.2 – Verifying Trigonometric Identities</li> <li>• Assessment</li> </ul>	Section 5.2 – <a href="#">Khan Academy - Proof of the sine angle addition identity</a>
	9 10/2 – 10/6	<b>Unit 2 – Chapter 5 – Analytic Trigonometry</b> <ul style="list-style-type: none"> <li>• Section 5.2 – Verifying Trigonometric Identities</li> <li>• Assessment</li> </ul>	Section 5.2 – <a href="#">Khan Academy - Proof of the cosine angle additional identity</a>
	10 10/9 – 10/13	<b>Unit 2 – Chapter 5 – Analytic Trigonometry</b> <ul style="list-style-type: none"> <li>• Section 5.3 – Solving Trigonometric Equations</li> </ul>	Section 5.3 – <a href="#">SOS Math - Solving Trigonometric Equations</a>

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 2 Oct 17 – Dec 21	1 10/17 – 10/20	<b>Unit 2 – Chapter 5 – Analytic Trigonometry</b> <ul style="list-style-type: none"> <li>Section 5.4 – Sum and Difference Formulas</li> <li>Section 5.5 – Multiple Angle Formulas: Double-Angle and Half-Angle</li> <li>Assessment</li> </ul>	Section 5.4 – <a href="#">Khan Academy - Using trig angle addition identities: finding side length</a> Section 5.5 – <a href="#">Khan Academy - Using the cosine double-angle identity</a>
	2 10/23 – 10/27	<b>Unit 2 – Chapter 5 – Analytic Trigonometry</b> <ul style="list-style-type: none"> <li>Section 5.5 – Multiple Angle Formulas: Double-Angle and Half-Angle</li> <li>Assessment</li> </ul>	Section 5.5 – <a href="#">Khan Academy - Using the cosine double-angle identity</a>
	3 10/30 – 11/3	<b>Unit 3 – Chapter 6 – Additional Topics in Trigonometry</b> <ul style="list-style-type: none"> <li>Section 6.1 – Law of Sines</li> <li>Section 6.2 – Law of Cosines</li> </ul>	Section 6.1 – <a href="#">Khan Academy - Solving for a side with the laws of sines</a> Section 6.2 – <a href="#">Khan Academy - Solve triangles using the law of cosines</a>
	4 11/6 – 11/9	<b>Unit 3 – Chapter 6 – Additional Topics in Trigonometry</b> <ul style="list-style-type: none"> <li>Section 6.2 – Law of Cosines</li> <li>Review</li> <li>Assessment</li> </ul>	Section 6.2 – <a href="#">Khan Academy - Solving triangle using the law of cosines</a>
	5 11/13 – 11/17	<b>Unit 3 – Chapter 6 – Vectors</b> <ul style="list-style-type: none"> <li>Section 6.3 – Vectors in the Plane</li> <li>Section 6.4 – Vectors and Dot Product</li> </ul>	Section 6.3 – <a href="#">Khan Academy - Vector intro for linear algebra</a> Section 6.4 – <a href="#">Khan Academy - Vector dot product and vector length</a>
	6 11/20 – 11/21	<b>Unit 3 – Chapter 6 – Vectors</b> <ul style="list-style-type: none"> <li>Section 6.4 – Vectors and Dot Product</li> <li>Assessment</li> </ul>	Section 6.4 – <a href="#">Khan Academy - Vector dot product and vector length</a>
	7 11/27 – 12/1	<b>Unit 3 – Chapter 6 – Vectors</b> <ul style="list-style-type: none"> <li>Section 6.5 – Trigonometric Form of a Complex Number</li> <li>Assessment</li> </ul>	Section 6.5 – <a href="#">Khan Academy - Polar &amp; rectangular forms of complex numbers</a> <a href="#">Khan Academy – Dividing complex numbers</a> <a href="#">Khan Academy – Powers of complex numbers</a>
	8 12/4 – 12/8	<b>Unit 3 – Chapter 6 – Vectors</b> <ul style="list-style-type: none"> <li>Review</li> </ul>	

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

# Pre-Calculus Honors

2017 – 2018

		<ul style="list-style-type: none"> <li>• Assessment</li> </ul>	
	9 12/11 – 12/15	<ul style="list-style-type: none"> <li>• Review semester content</li> </ul>	
	10 12/18 – 12/21	<ul style="list-style-type: none"> <li>• Review semester content</li> <li>• District exams</li> </ul>	

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 3 Jan 8 – Mar 15	1 1/8 – 1/12	<b>Unit 4 – Chapter 1 – Functions and Their Graphs</b> <ul style="list-style-type: none"> <li>Section 1.2 – Functions</li> <li>Section 1.3 – Graphs of Functions</li> </ul>	Section 1.2 – <a href="#">Khan Academy - What is a function</a> Section 1.3 – <a href="#">Khan Academy - Deprecated Domain &amp; range of piecewise functions</a>
	2 1/16 – 1/19	<b>Unit 4 – Chapter 1 – Functions and Their Graphs</b> <ul style="list-style-type: none"> <li>Section 1.3 – Graphs of Functions</li> <li>Section 1.4 – Shifting, Reflecting, and Stretching Graphs</li> <li>Assessment</li> </ul>	Section 1.3 – <a href="#">Khan Academy - Deprecated Domain &amp; range of piecewise functions</a> Section 1.4 – <a href="#">Khan Academy - Shifting &amp; reflecting functions</a>
	3 1/22 – 1/26	<b>Unit 4 – Chapter 1 – Functions and Their Graphs</b> <ul style="list-style-type: none"> <li>Section 1.5 – Combinations of Functions</li> <li>Section 1.6 – Inverse Functions</li> </ul>	Section 1.5 – <a href="#">Khan Academy - Adding functions</a> Section 1.6 – <a href="#">Khan Academy - Verifying inverse functions by composition</a>
	4 1/30 – 2/2	<b>Unit 5 – Chapter 2 – Polynomial and Rational Functions</b> <ul style="list-style-type: none"> <li>Section 2.1 – Quadratics</li> <li>Section 2.2 – Polynomial Functions of Higher Degree</li> <li>Section 2.3 – Real Zeros of Polynomial Functions</li> </ul>	Section 2.1 – <a href="#">Khan Academy - Vertex &amp; axis of symmetry of a parabola</a> Section 2.2 – <a href="#">Khan Academy - The parts of polynomial expressions</a> Section 2.3 – <a href="#">Khan Academy - Zeros of polynomials &amp; their graphs</a>
	5 2/5 – 2/9	<b>Unit 5 – Chapter 2 – Polynomial and Rational Functions</b> <ul style="list-style-type: none"> <li>Section 2.3 – Real Zeros of Polynomial Functions</li> <li>Section 2.4 – Complex Numbers</li> <li>Section 2.5 – The Fundamental Theorem of Algebra</li> </ul>	Section 2.3 – <a href="#">Khan Academy - Zeros of polynomials &amp; their graphs</a> Section 2.4 – <a href="#">Khan Academy - Classify complex numbers</a> Section 2.5 – <a href="#">Khan Academy - The Fundamental theorem of Algebra</a>
	6 2/12 – 2/16	<b>Unit 5 – Chapter 2 – Polynomial and Rational Functions</b> <ul style="list-style-type: none"> <li>Section 2.5 – The Fundamental Theorem of Algebra</li> <li>Section 2.6 – Rational Functions and Asymptotes</li> <li>Section 2.7 – Slant Asymptotes &amp; Graphs of Rational Functions</li> <li>Review</li> <li>Assessment</li> </ul>	Section 2.5 – <a href="#">Khan Academy - The Fundamental theorem of Algebra</a> Section 2.6 – <a href="#">Khan Academy - Graphing rational functions 2</a> Section 2.7 – <a href="#">Khan Academy – Graphing rational functions 3</a>
	7 2/20 – 2/23	<b>Unit 6 – Chapter 3 – Exponential and Logarithmic Functions</b> <ul style="list-style-type: none"> <li>Section 3.1 – Exponential Functions and Their Graphs</li> </ul>	Section 3.1 – <a href="#">Khan Academy - Exponential and logarithmic functions</a>
	8 2/26 – 3/2	<b>Unit 6 – Chapter 3 – Exponential and Logarithmic Functions</b> <ul style="list-style-type: none"> <li>Section 3.2 – Logarithmic Functions and Their Graphs</li> <li>Section 3.3 – Properties of Logarithms</li> </ul>	Section 3.2 – <a href="#">Khan Academy - Exponential and logarithmic functions</a> Section 3.3 – <a href="#">Khan Academy - Properties of logarithms</a>

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

# Pre-Calculus Honors

2017 – 2018

	<p>9 3/5 – 3/9</p>	<p><b>Unit 6 – Chapter 3 – Exponential and Logarithmic Functions</b></p> <ul style="list-style-type: none"> <li>• Section 3.3 – Properties of Logarithms</li> <li>• Section 3.4 – Solving Exponential and Logarithmic Equations</li> <li>• Section 3.5 – Exponential and Logarithmic Models</li> </ul>	<p>Section 3.3 – <a href="#">Khan Academy - Properties of logarithms</a>            Section 3.4 – <a href="#">Khan Academy - Exponential and logarithmic functions</a></p>
	<p>10 3/12 – 3/15</p>	<ul style="list-style-type: none"> <li>• Section 3.4 – Solving Exponential and Logarithmic Equations</li> <li>• Section 3.5 – Exponential and Logarithmic Models</li> <li>• Review</li> <li>• Assessment</li> </ul>	<p>Section 3.4 – <a href="#">Khan Academy - Exponential and logarithmic functions</a>            Section 3.5 – <a href="#">Khan Academy - Exponential and logarithmic functions</a></p>

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 4 Mar 19 – May 24	1 3/19 – 3/23	<b>Unit 7 – Chapter 8 – Binomial Theorem</b> <ul style="list-style-type: none"> <li>Section 8.4 – The Binomial Theorem</li> <li>Review</li> <li>Assessment</li> </ul>	Section 8.4 – <a href="#">Khan Academy - Intro to the Binomial Theorem</a>
	2 3/26 – 3/30	<b>SPRING BREAK – NO SCHOOL</b>	
	3 4/2 – 4/6	<b>Unit 8 – Chapter 9 – Conics</b> <ul style="list-style-type: none"> <li>Section 9.1 – Circles</li> <li>Section 9.1 – Parabolas</li> </ul>	Section 9.1 – <a href="#">Khan Academy - Features of a circle from its standard equation</a> Section 9.1 – <a href="#">Khan Academy - Equation of a parabola from focus and directrix</a>
	4 4/9 – 4/13	<b>Unit 8 – Chapter 9 – Conics</b> <ul style="list-style-type: none"> <li>Section 9.2 – Ellipses</li> <li>Section 9.3 – Hyperbolas</li> <li>Section 9.5 – Polar Coordinates and Equations</li> </ul>	Section 9.2 – <a href="#">Khan Academy - Foci of an ellipse</a> Section 9.3 – <a href="#">Khan Academy - Foci of a hyperbola</a> Section 9.5 – <a href="#">Khan Academy - Polar coordinates</a>
	5 4/16 – 4/20	<b>Unit 8 – Chapter 9 – Conics</b> <ul style="list-style-type: none"> <li>Review</li> <li>Assessment</li> </ul> <b>Unit 9 Chapter 11-Limits</b> <ul style="list-style-type: none"> <li>Section 11.1 – Introduction to Limits</li> </ul>	Section 11.1 – <a href="#">Khan Academy - Intro to limits</a>
	6 4/23 – 4/27	<b>Unit 9 – Chapter 11 – Limits</b> <ul style="list-style-type: none"> <li>Section 11.2 – Techniques for Evaluating Limits</li> <li>Review</li> <li>Assessment</li> </ul>	Section 11.2 – <a href="#">Khan Academy - One-sided limits from graphs</a>
	7 4/30 – 5/4	<b>Unit 9 – Chapter 11 – Limits</b> <ul style="list-style-type: none"> <li>Section 11.3 – The Tangent Line Problem</li> <li>Section 11.4 – Limits at Infinity and Limits of Sequences</li> </ul>	Section 11.3 – <a href="#">Khan Academy - Derivative as a limit</a> Section 11.4 – <a href="#">Khan Academy - Infinite limits intro</a>
	8 5/7 – 5/11	<b>Unit 9 – Chapter 11 – Limits</b> <ul style="list-style-type: none"> <li>Review</li> <li>Assessment</li> </ul>	
	9 5/14 – 5/18	<b>Course Review/Supplemental lesson(s)-OPTIONAL</b> Section 10.1-10.3 3-D Coordinate System & Vectors in Space Section 9.5-9.6 Polar Equations	<a href="#">Khan Academy – Repressing points in 3D</a> <a href="#">Khan Academy – Real coordinate spaces</a>

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

# Pre-Calculus Honors

2017 – 2018

		Section 8.1-8.4 Sequences and series Section 7.1-7.2 Solving Systems of Equations	
	10 5/21 – 5/24	<ul style="list-style-type: none"><li>Final exams</li></ul>	

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.