

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 12	1 8/10	<ul style="list-style-type: none"> • Introductions • Syllabus 	
	2 8/13 – 8/17	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.1 – Radian and Degree Measure • Section 4.1 – Arc Length, Terminal and Coterminal angles • Section 4.3 – Right Triangle Trigonometry • Section 4.2 – Unit Circle 	Section 4.1 – Khan Academy - Radians and degrees Section 4.1 – Khan Academy - Radians and degrees Section 4.3 – Khan Academy - Special right triangles proof Section 4.2 – Khan Academy - Deprecated Radians on the unit circle
	3 8/20 – 8/24	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.3 – Identities • Section 4.4 – Trigonometric Functions of Any Angle • Assessment 	Section 4.3 – Khan Academy - Special right triangles proof
	4 8/27 – 8/31	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.5 – Graphs of Sine and Cosine Functions • Assessment 	Section 4.5 – Khan Academy - Graph sinusoidal functions
	5 9/3 – 9/7	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.6 – Graphs of Other Trigonometric Functions • Assessment 	Section 4.6 – Khan Academy - Graph of $y=\tan(x)$
	6 9/10 – 9/14	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.7 – Inverse Trigonometric Functions • Assessment 	Section 4.7 – Khan Academy - Trigonometric equations and identities
	7 9/17 – 9/21	Unit 1 – Chapter 4 – Trigonometric Functions <ul style="list-style-type: none"> • Section 4.8 – Applications and Models • Review • Assessment 	
	8 9/24 – 9/28	Unit 2 – Chapter 5 – Analytic Trigonometry <ul style="list-style-type: none"> • Section 5.1 – Using Fundamental Identities • Section 5.2 – Verifying Trigonometric Identities • Assessment 	Section 5.2 – Khan Academy - Proof of the sine angle addition identity
	9 10/1 – 10/5	Unit 2 – Chapter 5 – Analytic Trigonometry <ul style="list-style-type: none"> • Section 5.2 – Verifying Trigonometric Identities • Assessment • 	Section 5.2 – Khan Academy - Proof of the cosine angle additional identity

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.

	10 10/8 – 10/12	Unit 2 – Chapter 5 – Analytic Trigonometry <ul style="list-style-type: none">Section 5.3 – Solving Trigonometric Equations	Section 5.3 – SOS Math - Solving Trigonometric Equations
--	--------------------	---	--

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 16 – Dec 21	1 10/16 – 10/19	Unit 2 – Chapter 5 – Analytic Trigonometry <ul style="list-style-type: none"> Section 5.4 – Sum and Difference Formulas Section 5.5 – Multiple Angle Formulas: Double-Angle and Half-Angle Assessment 	Section 5.4 – Khan Academy - Using trig angle addition identities: finding side length Section 5.5 – Khan Academy - Using the cosine double-angle identity
	2 10/22 – 10/26	Unit 2 – Chapter 5 – Analytic Trigonometry <ul style="list-style-type: none"> Section 5.5 – Multiple Angle Formulas: Double-Angle and Half-Angle Assessment 	Section 5.5 – Khan Academy - Using the cosine double-angle identity
	3 10/29 – 11/2	Unit 3 – Chapter 6 – Additional Topics in Trigonometry <ul style="list-style-type: none"> Section 6.1 – Law of Sines Section 6.2 – Law of Cosines 	Section 6.1 – Khan Academy - Solving for a side with the laws of sines Section 6.2 – Khan Academy - Solve triangles using the law of cosines
	4 11/5 – 11/9	Unit 3 – Chapter 6 – Additional Topics in Trigonometry <ul style="list-style-type: none"> Section 6.2 – Law of Cosines Review Assessment 	Section 6.2 – Khan Academy - Solving triangle using the law of cosines
	5 11/12 – 11/16	Unit 3 – Chapter 6 – Vectors <ul style="list-style-type: none"> Section 6.3 – Vectors in the Plane Section 6.4 – Vectors and Dot Product 	Section 6.3 – Khan Academy - Vector intro for linear algebra Section 6.4 – Khan Academy - Vector dot product and vector length
	6 11/19 – 11/20	Unit 3 – Chapter 6 – Vectors <ul style="list-style-type: none"> Section 6.4 – Vectors and Dot Product Assessment 	Section 6.4 – Khan Academy - Vector dot product and vector length
	7 11/26 – 11/30	Unit 3 – Chapter 6 – Vectors <ul style="list-style-type: none"> Section 6.5 – Trigonometric Form of a Complex Number 	Section 6.5 – Khan Academy - Polar & rectangular forms of complex numbers

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.

		<ul style="list-style-type: none"> Assessment 	Khan Academy – Dividing complex numbers Khan Academy – Powers of complex numbers
	8 12/3 – 12/7	<i>Unit 3 – Chapter 6 – Vectors</i> <ul style="list-style-type: none"> Review Assessment 	
	9 12/10 – 12/14	<ul style="list-style-type: none"> Review semester content 	
	10 12/17 – 12/21	<ul style="list-style-type: none"> Review semester content District exams 	

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 7 – Mar 14	1 1/7– 1/11	Unit 4 – Chapter 1 – Functions and Their Graphs <ul style="list-style-type: none"> Section 1.3 – Graphs of Functions Section 1.4 – Shifting, Reflecting, and Stretching Graphs Assessment 	Section 1.3 – Khan Academy - Deprecated Domain & range of piecewise functions Section 1.4 – Khan Academy - Shifting & reflecting functions
	2 1/14 – 1/18	Unit 4 – Chapter 1 – Functions and Their Graphs <ul style="list-style-type: none"> Section 1.5 – Combinations of Functions Section 1.6 – Inverse Functions 	Section 1.5 – Khan Academy - Adding functions Section 1.6 – Khan Academy - Verifying inverse functions by composition
	3 1/21 – 1/25	Unit 5 – Chapter 2 – Polynomial and Rational Functions <ul style="list-style-type: none"> Section 2.1 – Quadratics Section 2.2 – Polynomial Functions of Higher Degree Section 2.3 – Real Zeros of Polynomial Functions 	Section 2.1 – Khan Academy - Vertex & axis of symmetry of a parabola Section 2.2 – Khan Academy - The parts of polynomial expressions Section 2.3 – Khan Academy - Zeros of polynomials & their graphs
	4 1/28 – 2/1	Unit 5 – Chapter 2 – Polynomial and Rational Functions <ul style="list-style-type: none"> Section 2.3 – Real Zeros of Polynomial Functions Section 2.4 – Complex Numbers Section 2.5 – The Fundamental Theorem of Algebra 	Section 2.3 – Khan Academy - Zeros of polynomials & their graphs Section 2.4 – Khan Academy - Classify complex numbers Section 2.5 – Khan Academy - The Fundamental theorem of Algebra
	5 2/4 – 2/8	Unit 5 – Chapter 2 – Polynomial and Rational Functions <ul style="list-style-type: none"> Section 2.5 – The Fundamental Theorem of Algebra Section 2.6 – Rational Functions and Asymptotes Section 2.7 – Slant Asymptotes & Graphs of Rational Functions Review Assessment 	Section 2.5 – Khan Academy - The Fundamental theorem of Algebra Section 2.6 – Khan Academy - Graphing rational functions 2 Section 2.7 – Khan Academy – Graphing rational functions 3

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.

6 2/11 – 2/15	<p>Unit 6 – Chapter 8 – Binomial Theorem</p> <ul style="list-style-type: none"> Section 8.4 – The Binomial Theorem Review Assessment 	Section 8.4 – Khan Academy - Intro to the Binomial Theorem
7 2/18 – 2/22	<p>Unit 7 – Chapter 11-Limits</p> <ul style="list-style-type: none"> Section 11.1 – Introduction to Limits Section 11.2 – Techniques for Evaluating Limits Review Assessment 	Section 11.1 – Khan Academy - Intro to limits Section 11.2 – Khan Academy - One-sided limits from graphs
8 2/25 – 3/1	<p>Unit 7 – Chapter 11 – Limits</p> <ul style="list-style-type: none"> Section 11.3 – The Tangent Line Problem Section 11.4 – Limits at Infinity and Limits of Sequences 	Section 11.3 – Khan Academy - Derivative as a limit Section 11.4 – Khan Academy - Infinite limits intro
9 3/4 – 3/8	<p>Unit 7 – Chapter 11 – Limits</p> <ul style="list-style-type: none"> Review Assessment 	
10 3/11 – 3/14	<p>Unit 8 – Section 9.5-9.6 Polar Equations</p> <ul style="list-style-type: none"> Review Assessment 	

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 18 – May 24	1 3/18 – 3/22	<ul style="list-style-type: none"> • SPRING BREAK – NO SCHOOL 	
	2 3/25 – 3/29	<p>Unit 9 – Chapter 9 – Conics</p> <ul style="list-style-type: none"> • Section 9.1 – Circles • Section 9.1 – Parabolas 	Section 9.1 – Khan Academy - Features of a circle from its standard equation Section 9.1 – Khan Academy - Equation of a parabola from focus and directrix
	3 4/1 – 4/5	<p>Unit 9 – Chapter 9 – Conics</p> <ul style="list-style-type: none"> • Section 9.2 – Ellipses • Section 9.3 – Hyperbolas • Section 9.5 – Polar Coordinates and Equations 	Section 9.2 – Khan Academy - Foci of an ellipse Section 9.3 – Khan Academy - Foci of a hyperbola Section 9.5 – Khan Academy - Polar coordinates
	4 4/8 – 4/12	<p>Unit 9 – Chapter 9 – Conics</p> <ul style="list-style-type: none"> • Review • Assessment • Review course standards 	
	5 4/15 – 4/19	<ul style="list-style-type: none"> • Review course standards 	
	6 4/22 – 4/26	<p>Unit 10 – Chapter 3 – Exponential and Logarithmic Functions</p> <ul style="list-style-type: none"> • Section 3.1 – Exponential Functions and Their Graphs 	Section 3.1 – Khan Academy - Exponential and logarithmic functions
	7 4/29 – 5/3	<p>Unit 10 – Chapter 3 – Exponential and Logarithmic Functions</p> <ul style="list-style-type: none"> • Section 3.2 – Logarithmic Functions and Their Graphs • Section 3.3 – Properties of Logarithms 	Section 3.2 – Khan Academy - Exponential and logarithmic functions Section 3.3 – Khan Academy - Properties of logarithms
	8 5/6 – 5/10	<p>Unit 10 – Chapter 3 – Exponential and Logarithmic Functions</p> <ul style="list-style-type: none"> • Section 3.3 – Properties of Logarithms • Section 3.4 – Solving Exponential and Logarithmic Equations 	Section 3.3 – Khan Academy - Properties of logarithms

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.

		<ul style="list-style-type: none"> Section 3.5 – Exponential and Logarithmic Models 	Section 3.4 – Khan Academy - Exponential and logarithmic functions
	<p>9 5/13 – 5/17</p>	<p>Unit 10 – Chapter 3 – Exponential and Logarithmic Functions</p> <ul style="list-style-type: none"> Section 3.4 – Solving Exponential and Logarithmic Equations Section 3.5 – Exponential and Logarithmic Models Review Assessment 	<p>Section 3.4 – Khan Academy - Exponential and logarithmic functions</p> <p>Section 3.5 – Khan Academy - Exponential and logarithmic functions</p>
	<p>10 5/20 – 5/24</p>	<ul style="list-style-type: none"> Supplement Lessons / Optional 	

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.