

Precalculus Syllabus
Distance Learning, 2009 - 2010
First Semester

Week of	What to do this week	Assignments
Sept. 8	Chapter 1 <input type="checkbox"/> Lesson 1: Sets, Real Numbers, Inequalities, etc. <input type="checkbox"/> Lesson 2: Exponents and Radicals <input type="checkbox"/> Lesson 3: Polynomials, Geometry Formulas <input type="checkbox"/> Lesson 4: Equations, Quadratic Equations <input type="checkbox"/> HW 1A <input type="checkbox"/> Lesson 5: Mathematical Modeling <input type="checkbox"/> Lesson 6: Mathematical Modeling <input type="checkbox"/> HW 1B	Due Sept 14: HW 1A HW 1B
Sept. 14	<input type="checkbox"/> Lesson 7: Inequalities <input type="checkbox"/> Lesson 8: Polynomial and other Inequalities <input type="checkbox"/> HW 1C <input type="checkbox"/> Lesson 9: Complex Numbers <input type="checkbox"/> Lesson 10: The Number i , Negative Discriminants <input type="checkbox"/> Lesson 11: Rectangular Coordinates <input type="checkbox"/> HW 1D <input type="checkbox"/> Lesson 12: Graphing Equations	Due Sept 21: HW 1C HW 1D
Sept. 21	<input type="checkbox"/> Lesson 13: Circles <input type="checkbox"/> Lesson 14: Slope and Equations of Lines <input type="checkbox"/> Lesson 15: Parallel and Perpendicular Lines <input type="checkbox"/> HW 1E <input type="checkbox"/> HW 1F and 1G (Honors) <input type="checkbox"/> Chapter 1 Test	Due Sept 28: HW 1E HW 1F (Honors) HW 1G (Honors) Chapter 1 Test
Sept. 28	Chapter 2 <input type="checkbox"/> Lesson 1: Definition of a Function <input type="checkbox"/> Lesson 2: The Graph of a Function <input type="checkbox"/> Lesson 3: Function Notation, Difference Quotients <input type="checkbox"/> Lesson 4: Important Functions <input type="checkbox"/> Lesson 5: Piecewise Functions <input type="checkbox"/> HW 2A <input type="checkbox"/> Lesson 6: Graphing Functions <input type="checkbox"/> Lesson 7: Scaling a Graph Vertically <input type="checkbox"/> Lesson 8: Combining Graphing Procedures <input type="checkbox"/> HW 2B	Due Oct 5: HW 2A HW 2B
Oct. 5	<input type="checkbox"/> Lesson 9: Operations on Functions <input type="checkbox"/> Lesson 10: Composite Functions <input type="checkbox"/> HW 2C <input type="checkbox"/> Lesson 11: One-to-one Functions <input type="checkbox"/> Lesson 12: Inverse Functions <input type="checkbox"/> Lesson 13: Mathematical Models <input type="checkbox"/> Lesson 14: Mathematical Models <input type="checkbox"/> HW 2D <input type="checkbox"/> HW 2E, HW 2F (Honors) <input type="checkbox"/> Chapter 2 Test	Due Oct 12: HW 2C HW 2D HW 2E (Honors) HW 2F (Honors) Chapter 2 Test

Oct. 12	<p>Chapter 3</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 1: Quadratic Functions <input type="checkbox"/> Lesson 2: Graphing Quadratics <input type="checkbox"/> Lesson 3: Applications <input type="checkbox"/> HW 3A <input type="checkbox"/> Lesson 4: Polynomial Functions 	Due Oct 19: HW 3A
Oct. 19	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 5: Graphing Polynomial Functions <input type="checkbox"/> Lesson 6: Analyzing Graphs of Polynomials <input type="checkbox"/> HW 3B <input type="checkbox"/> Lesson 7: Rational Functions <input type="checkbox"/> Lesson 8: Asymptotes 	Due Oct 26: HW 3B
Oct. 26	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 9: Graphing Rational Functions <input type="checkbox"/> Lesson 10: Graphing Rational Functions <input type="checkbox"/> HW 3C <input type="checkbox"/> Lesson 11: Division of Polynomials <input type="checkbox"/> Lesson 12: Synthetic Division <input type="checkbox"/> HW 3D <input type="checkbox"/> Lesson 13: Zeros of a Polynomial 	Due Nov 2: HW 3C HW 3D
Nov. 2	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 14: Finding Real Zeros <input type="checkbox"/> Lesson 15: Approximating Real Zeros <input type="checkbox"/> HW 3E <input type="checkbox"/> Lesson 16: The Fundamental Theorem of Algebra <input type="checkbox"/> Lesson 17: Complex Polynomials <input type="checkbox"/> HW 3F and HW 3G (Honors) <input type="checkbox"/> Chapter 3 Test 	Due Nov 9: HW 3E HW 3F (Honors) HW 3G (Honors) Chapter 3 Test
Nov. 9	<p>Chapter 4</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lesson 1: Exponential and Logarithmic Functions <input type="checkbox"/> Lesson 2: The Base e <input type="checkbox"/> Lesson 3: Logarithmic Functions <input type="checkbox"/> Lesson 4: Graphs of Logarithmic Function <input type="checkbox"/> HW 4A <input type="checkbox"/> Lesson 5: Properties of Logarithms <input type="checkbox"/> Lesson 6: Logarithms on a Calculator <input type="checkbox"/> HW 4B 	Due Nov 16: HW 4A HW 4B
Nov. 16	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 7: Logarithmic Equations <input type="checkbox"/> Lesson 8: Exponential Equations <input type="checkbox"/> HW 4C <input type="checkbox"/> Lesson 9: Compound Interest <input type="checkbox"/> Lesson 10: Compound Interest 	Due Nov 30: HW 4C
Nov. 23	Thanksgiving Break	
Nov. 30	<ul style="list-style-type: none"> <input type="checkbox"/> Lesson 11: Growth and Decay <input type="checkbox"/> Lesson 12: Radioactive Decay <input type="checkbox"/> HW 4D <input type="checkbox"/> Lesson 13: Logarithmic Scales <input type="checkbox"/> HW 4E (Honors) <input type="checkbox"/> Chapter 4 Test 	Due Dec 7: HW 4D HW 4E (Honors) Chapter 4 Test
Dec. 7	Review for Exam	
Dec. 14	Semester 1 Exam	

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Second Semester

Week of	What to do this week	Assignments
Jan 4	Chapter 5 <input type="checkbox"/> Lesson 1: Angles and Degrees <input type="checkbox"/> HW 5A <input type="checkbox"/> HW 5B <input type="checkbox"/> Lesson 2: Circular Motion <input type="checkbox"/> Lesson 3: The Unit Circle <input type="checkbox"/> Lesson 4: Trig Functions of Common Angles <input type="checkbox"/> Lesson 5: Domain and Range of Trig Functions <input type="checkbox"/> HW 5C <input type="checkbox"/> Lesson 6: Fundamental Identities	Due Jan 11: HW 5A HW 5B HW 5C
Jan 11	<input type="checkbox"/> Lesson 7: Right Triangle Trigonometry <input type="checkbox"/> Lesson 8: Reference Angles <input type="checkbox"/> Lesson 9: Solving Right Triangles <input type="checkbox"/> Lesson 10: Applications <input type="checkbox"/> HW 5D <input type="checkbox"/> Test on Chapter 5	Due Jan 18: HW 5D Chapter 5 Test
Jan 18	Chapter 6 <input type="checkbox"/> Lesson 1: Graphs of the Sine Function <input type="checkbox"/> Lesson 2: Graphs of the Cosine Function <input type="checkbox"/> Lesson 3: Sinusoidal Graphs <input type="checkbox"/> HW 6A <input type="checkbox"/> Lesson 4: Phase Shifts <input type="checkbox"/> HW 6B <input type="checkbox"/> Lesson 5: Combining Waves <input type="checkbox"/> Lesson 6: Simple Harmonic Motion	Due Jan 25: HW 6A HW 6B
Jan 25	<input type="checkbox"/> Lesson 7: Graphs of the Tangent Function <input type="checkbox"/> Lesson 8: Graphs of Cosecant, Secant, Cotangent <input type="checkbox"/> HW 6C <input type="checkbox"/> Lesson 9: Inverse Sine <input type="checkbox"/> Lesson 10: Inverse Cosine <input type="checkbox"/> Lesson 11: Inverse Tangent <input type="checkbox"/> Lesson 12: Expressions involving Trig Functions <input type="checkbox"/> HW 6D <input type="checkbox"/> Test on Chapter 6	Due Feb 1: HW 6C HW 6D Chapter 6 Test
Feb 1	Chapter 7 <input type="checkbox"/> Lesson 1: Trigonometric Identities <input type="checkbox"/> HW 7A <input type="checkbox"/> Lesson 2: Sum and Difference Formulas <input type="checkbox"/> Lesson 3: Sum and Difference Formulas <input type="checkbox"/> HW 7B <input type="checkbox"/> HW 7C	Due Feb 8: HW 7A HW 7B HW 7C
Feb 8	<input type="checkbox"/> Lesson 4: Double Angle Formulas <input type="checkbox"/> Lesson 5: Half Angle Formulas <input type="checkbox"/> HW 7D (Lesson 6 is deliberately omitted) <input type="checkbox"/> Lesson 7: Trigonometric Equations <input type="checkbox"/> Lesson 8: Trigonometric Equations <input type="checkbox"/> HW 7E <input type="checkbox"/> HW 7F (Honors) <input type="checkbox"/> Test on Chapter 7	Due Feb 15: HW 7D HW 7E HW 7F Chapter 7 Test
Feb 15	Chapter 8 <input type="checkbox"/> Lesson 1: The Law of Sines <input type="checkbox"/> Lesson 2: The Ambiguous Case <input type="checkbox"/> Lesson 3: Applications <input type="checkbox"/> HW 8A <input type="checkbox"/> HW 8B <input type="checkbox"/> Lesson 4: The Law of Cosines	Due Feb 22: HW 8A HW 8B

Feb 22	<input type="checkbox"/> Lesson 5: The Area of a Triangle <input type="checkbox"/> HW 8C <input type="checkbox"/> Lesson 6: Polar Coordinates <input type="checkbox"/> Lesson 7: Polar and Rectangular Conversion <input type="checkbox"/> HW 8D <input type="checkbox"/> HW 8E <input type="checkbox"/> HW 8F <input type="checkbox"/> Lesson 8: Polar Equations and Graphs	Due Mar 1: HW 8C HW 8D HW 8E HW 8F
Mar 1	<input type="checkbox"/> Lesson 9: Polar Equations and Graphs <input type="checkbox"/> Lesson 10: Polar Equations and Graphs <input type="checkbox"/> HW 8G <input type="checkbox"/> HW 8H <input type="checkbox"/> Lesson 11: Complex Numbers <input type="checkbox"/> Lesson 12: DeMoivre's Theorem <input type="checkbox"/> HW 8J <input type="checkbox"/> Test on Chapter 8	Due Mar 8: HW 8G HW 8H HW 8J Chapter 8 Test
Mar 8	Chapter 9 <input type="checkbox"/> Lesson 1: Conic Sections <input type="checkbox"/> Lesson 2: Parabolas <input type="checkbox"/> Lesson 3: Translation of Parabolas <input type="checkbox"/> HW9A	Due Mar 15: HW 9A
Mar 15	<input type="checkbox"/> Lesson 4: Ellipses <input type="checkbox"/> Lesson 5: Translation of Ellipses <input type="checkbox"/> HW 9B <input type="checkbox"/> Lesson 6: Hyperbolas <input type="checkbox"/> Lesson 7: Translation of Hyperbolas <input type="checkbox"/> HW 9C	Due Mar 22: HW 9B HW 9C
Mar 22	<input type="checkbox"/> Lesson 8: The General Form of a Conic <input type="checkbox"/> Lesson 9: Polar Equations of Conics <input type="checkbox"/> HW 9D <input type="checkbox"/> Lesson 10: Parametric Equations <input type="checkbox"/> Lesson 11: Parametric Equations on a Calculator <input type="checkbox"/> Test on Chapter 9	Due Mar 29: HW 9D Chapter 9 Test
Mar 29	Chapter 10 <input type="checkbox"/> Lesson 1: Solving Systems <input type="checkbox"/> Lesson 2: Solving Systems <input type="checkbox"/> Lesson 3: Solving Systems <input type="checkbox"/> HW 10A	Due Apr 12: HW 10A
Apr 5	Spring Break	
Apr 12	<input type="checkbox"/> Lesson 4: Matrix Notation <input type="checkbox"/> Lesson 5: Echelon Form <input type="checkbox"/> HW 10B Lesson 6: Determinants <input type="checkbox"/> HW 10C	Due Apr 19: HW 10B HW 10C
Apr 19	<input type="checkbox"/> Lesson 7: Nonlinear Systems <input type="checkbox"/> HW 10D <input type="checkbox"/> Systems of Inequalities <input type="checkbox"/> HW 10E <input type="checkbox"/> HW 10F (Honors) <input type="checkbox"/> Chapter 10 Test	Due Apr 26: HW 10D HW 10E HW 10F (Honors)
Apr 26	Chapter 11 <input type="checkbox"/> Lesson 1: Sequences, etc. <input type="checkbox"/> Lesson 2: Recursion <input type="checkbox"/> Lesson 3: Arithmetic Sequences and Series <input type="checkbox"/> HW 11A	Due May 3: HW 11A
May 3	<input type="checkbox"/> Lesson 4: Geometric Sequences and Series <input type="checkbox"/> HW 11B <input type="checkbox"/> Lesson 5: Mathematical Induction <input type="checkbox"/> Lesson 6: The Binomial Theorem <input type="checkbox"/> HW 11C	Due May 10: HW 11B HW 11C
May 10	Second Semester Exam	Exam Due May 15