

MAT 139: College Algebra Calendar WN 16

Proposed Days	Actual Days	Coursepack References	Topics
1/19		1.1	Functions/Function Notation, Domain and Range, Symmetry, Intercepts, Max/Mins
1/21		1.2	Review: Graphing Linear Functions Review: Finding Equation of a Line Review: Linear Modeling
1/26		1.3	Review: Graphing Quadratic Functions – in standard form and using transformations of graphs Review: Quadratic Modeling – includes techniques for solving quadratic equations
1/28		1.4	Solving Quadratic Inequalities Review: Quadratic Modeling
2/2		1.5	Higher Order Polynomials – Graphical Approach <ul style="list-style-type: none"> • Graphs of Power Functions - including transformations of graphs • General polynomials: End Behavior, Turning Points, Real Zeros
2/4		1.6	Higher Order Polynomials – Algebraic Approach <ul style="list-style-type: none"> • Solving Polynomial Equations, Complex Zeros • Fundamental Theorem of Algebra
2/9		1.7	Solving Inequalities Containing Polynomials Modeling with Higher Cubic Polynomials
		1.8	Absolute Value Functions <ul style="list-style-type: none"> • Graphing - using transformations of graphs • Solving Equations and Inequalities; Applications
2/11		Unit 1	Review
2/16		Unit 1	Test 1
2/18		2.1	Simplifying Expressions with Exponents (Integer, Rational)
2/23		2.2	Graphing Exponential Functions – include transformations of graphs Finding Equations of Exponential Functions
2/25		2.3	Modeling with Exponential Functions
3/8		2.4	Compositions of Functions Inverse Functions
3/10		2.5	Introduction to Logarithms Graphing Log Functions - include transformations of graphs Applications of Logarithms (pH, decibel, Richter)
3/15		2.6	Power Property of Logs; Solving Basic Exponential/Log Equations Modeling with Exponential Functions
3/17		2.7	More Properties of Logs; Use in Solving Exponential/Log Equations Natural Exponential and Log Functions – Intro and Equation Solving
3/22		2.8	Applications and Modeling with Exponential and Log Functions
		Unit 2	Review
3/24		Unit 2	Test 2
3/29		3.1	Rational Functions: Basic Graphs, Transformations, Domain/Range, Asymptotes, Holes Simplifying Rational Functions
3/31		3.2	Multiply/Divide Rational Expressions Add/Subtract Rational Expressions
4/5		3.3	Simplify Complex Fractions Solve Rational Equations and Inequalities

4/7		3.4	Modeling with Rational Functions Proportions and Similar Triangles Variation
4/12		3.5	Simplifying Radical Expressions Add, Subtract, Multiply Radicals (revisit complex arithmetic)
4/14		3.6	Quotients of Radicals; Rationalizing Denominators Graphing Radical Functions; Transformations
4/19		3.7	Solving Radical Equations
		3.8	Modeling with Square Root Functions Pythagorean Theorem, Distance Formula
		Unit 3	Review
4/21		Unit 3	Test 3
4/26		4.1	Conic Sections (Circles, Ellipses) Completing the Square to Graph Using Transformations of Graphs
4/28		Entire Course	Review
5/5		Entire Course	Final Exam