

MAT 139.40: College Algebra  
Calendar/Content WN 2017

Day	Textbook References	Topics
1 1/17	1.1A  1.1B	Functions/Function Notation, Domain and Range, Symmetry, Intercepts, Max/Mins Graphs of Functions
2 1/19	1.2A  1.2B	Review: Graphing Linear Functions Review: Finding Equation of a Line Review: Linear Modeling
3 1/24	1.3A 1.3B	Real and Complex Zeros of Quadratic Functions Review: Graphing Quadratic Functions – in standard form and using transformations of graphs
4 1/26	1.4A  1.4B	Review: Quadratic Modeling – includes techniques for solving quadratic equations Solving Quadratic Inequalities
5 1/31	1.5A 1.5B 1.5C	Higher Order Polynomials – Graphical Approach <ul style="list-style-type: none"> <li>• Graphs of Power Functions - including transformations</li> <li>• General polynomials: Real Zeros</li> <li>• General polynomials: End Behavior, Turning Points</li> </ul>
6 2/2	1.6A 1.6B	Higher Order Polynomials – Algebraic Approach <ul style="list-style-type: none"> <li>• Solving Polynomial Equations, Rational Zeros</li> <li>• Fundamental Theorem of Algebra, Complex Zeros</li> </ul>
7 2/7	1.7	Solving Inequalities Containing Polynomials Modeling with Higher/Cubic Polynomials
8 2/9	1.8A 1.8B	Absolute Value Functions <ul style="list-style-type: none"> <li>• Graphing - using transformations of graphs</li> <li>• Solving Equations and Inequalities; Applications</li> </ul> Review Unit One
9 2/14	Unit 1	Exam 1
10 2/16	2.1A 2.1B	Simplifying Expressions with Exponents <ul style="list-style-type: none"> <li>• Integer</li> <li>• Rational</li> </ul>
11 2/21	2.2A 2.2B	Graphing Exponential Functions – including transformations Finding Equations of Exponential Functions
12 2/23	2.3	Modeling with Exponential Functions
Midterm BREAK		
13 3/7	2.4A 2.4B	Compositions of Functions Inverse Functions
14 3/9	2.5A 2.5B	Introduction to Logarithms Graphing Log Functions - including transformations of graphs Applications of Logarithms (pH, decibel, Richter)

15 3/14	2.6A 2.6B 2.7	Power Property of Logs Solving Basic Exponential/Log Equations Modeling with Exponential Functions
16 3/16	2.7 cont.  2.8A	More Properties of Logs; Use in Solving Exponential/Log Equations Natural Exponential and Log Functions – Intro and Equation Solving
17 3/21	2.8B	Applications and Modeling with Exponential and Log Functions Review Unit 2
18 3/23	Unit 2	Exam 2
19 3/28	3.1A 3.1B	Simplifying Rational Functions Rational Functions: Basic Graphs, Transformations, Domain/Range, Asymptotes, Holes
20 3/30	3.2A 3.2B	Multiply/Divide Rational Expressions Add/Subtract Rational Expressions
21 4/4	3.2C 3.3	Simplify Complex Fractions Solving Rational Equations and Inequalities
22 4/6	3.4	Modeling with Rational Functions Proportions and Similar Triangles Variation
23 4/11	3.5A 3.5B	Simplifying Radical Expressions Graphing Radical Functions; Transformations
24 4/13	3.6A 3.6B	Add, Subtract, Multiply Radicals (revisit complex arithmetic) Quotients of Radicals; Rationalizing Denominators
25 4/18	3.7 3.8A	Solving Radical Equations Modeling with Square Root Functions
26 4/20	3.8B	Pythagorean Theorem, Distance Formula Review Unit 3
27 4/25	Unit 3	Exam 3
28 4/27	4.1	Conic Sections (Circles) Completing the Square to Graph, Transformations of Graphs
29 5/2	Units 1-3	Review
30 5/4	Units 1-3	Exam 4 (Cumulative Final)