# Course Syllabus

**Course Name:** MAT 101 Intermediate Algebra SP17 - A-C  
**Course Code:** CGKP3-A4CFH  
**ALEKS Course:** Intermediate Algebra  
**Instructor:** 101  
**Course Dates:** Begin: 01/18/2017   End: 06/01/2017  
**Course Content:** 449 topics / 362 accessible topics  

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Accessible Topic - Topics accessible to visually impaired students using a screen reader.

### Ch.1-The Real Numbers  (65 topics, due on 02/03/2017)

**Section 1.1** (4 topics)
- Ordering integers
- Square root of a perfect square
- Identifying numbers as integers or non-integers
- Identifying numbers as rational or irrational

**Section 1.2** (20 topics)
- Integer addition: Problem type 1
- Integer addition: Problem type 2
- Integer subtraction: Problem type 1
- Integer subtraction: Problem type 2
- Integer subtraction: Problem type 3
- Addition and subtraction with 3 integers
- Word problem with addition or subtraction of integers
- Integer multiplication and division
- Multiplication of 3 or 4 integers
- Division involving zero
- Least common multiple of 2 numbers
- Signed fraction subtraction involving double negation
- Signed fraction multiplication: Advanced
- Signed fraction division
- Signed decimal addition and subtraction
- Signed decimal multiplication
- Signed decimal division
Properties of addition
Introduction to properties of multiplication
Properties of real numbers

Section 1.3  (26 topics)

- Exponents and integers: Problem type 1
- Exponents and integers: Problem type 2
- Exponents and signed fractions
- Product rule with positive exponents: Univariate
- Product rule with positive exponents: Multivariate
- Power rules with positive exponents: Multivariate products
- Power rules with positive exponents: Multivariate quotients
- Power and product rules with positive exponents
- Simplifying a ratio of univariate monomials
- Quotient of expressions involving exponents
- Simplifying a ratio of multivariate monomials: Advanced
- Power and quotient rules with positive exponents
- Evaluating expressions with exponents of zero
- Evaluating an expression with a negative exponent: Whole number base
- Evaluating an expression with a negative exponent: Positive fraction base
- Evaluating an expression with a negative exponent: Negative integer base
- Rewriting an algebraic expression without a negative exponent
- Product rule with negative exponents
- Quotient rule with negative exponents: Problem type 1
- Quotient rule with negative exponents: Problem type 2
- Power of a power rule with negative exponents
- Power rules with negative exponents
- Power and quotient rules with negative exponents: Problem type 1
- Converting between scientific notation and standard form in a real-world situation
- Multiplying numbers written in scientific notation: Basic
- Dividing numbers written in scientific notation: Basic

Section 1.4  (11 topics)

- Order of operations with integers
- Evaluating a linear expression: Integer multiplication with addition or subtraction
- Evaluating a quadratic expression: Integers
- Combining like terms: Integer coefficients
- Distributive property: Whole number coefficients
- Distributive property: Integer coefficients
- Using distribution and combining like terms to simplify: Univariate
- Using distribution with double negation and combining like terms to simplify: Multivariate
- Combining like terms in a quadratic expression
- Perimeter of a square or a rectangle
- Area of a square or a rectangle

Chapter 1 Supplementary Topics  (4 topics)

- Operations with absolute value: Problem type 2
- Order of operations with integers and exponents
- Multiplying numbers written in scientific notation: Advanced
- Dividing numbers written in scientific notation: Advanced

Ch.2-Linear Equations and Inequalities  (88 topics, due on 02/17/2017)

Section 2.1  (21 topics)

- Additive property of equality with decimals
- Additive property of equality with integers
- Additive property of equality with signed fractions
- Multiplicative property of equality with whole numbers
- Multiplicative property of equality with fractions
- Multiplicative property of equality with decimals
- Multiplicative property of equality with integers
- Multiplicative property of equality with signed fractions
- Identifying solutions to a linear equation in one variable: Two-step equations
- Additive property of equality with a negative coefficient
- Solving a two-step equation with integers
- Solving a multi-step equation given in fractional form
• Solving a linear equation with several occurrences of the variable: Variables on the same side
• Solving a linear equation with several occurrences of the variable: Variables on both sides
• Solving a linear equation with several occurrences of the variable: Variables on the same side and distribution
• Solving a linear equation with several occurrences of the variable: Variables on both sides and distribution
• Solving a linear equation with several occurrences of the variable: Fractional forms with monomial numerators
• Solving a two-step equation with signed fractions
• Solving a linear equation with several occurrences of the variable: Variables on both sides and fractional coefficients
• Solving a linear equation with several occurrences of the variable: Fractional forms with binomial numerators
• Solving equations with zero, one, or infinitely many solutions

Section 2.2  (14 topics)

• Circumference of a circle
• Solving for a variable in terms of other variables using addition or subtraction: Basic
• Solving for a variable in terms of other variables using addition or subtraction: Advanced
• Solving for a variable in terms of other variables using multiplication or division: Basic
• Solving for a variable in terms of other variables using multiplication or division: Advanced
• Solving for a variable in terms of other variables using addition or subtraction with division
• Solving for a variable inside parentheses in terms of other variables
• Solving for a variable in terms of other variables in a linear equation with fractions
• Writing a one-step expression for a real-world situation
• Translating a phrase into a one-step expression
• Translating a phrase into a two-step expression
• Translating a sentence into a one-step equation
• Translating a sentence into a multi-step equation
• Writing a multi-step equation for a real-world situation

Section 2.3  (7 topics*)

• Translating a sentence into a one-step equation
• Translating a sentence into a multi-step equation
• Solving a fraction word problem using a linear equation of the form Ax = B
• Solving a word problem with two unknowns using a linear equation
• Solving a decimal word problem using a linear equation of the form Ax + B = C
• Finding the side length of a rectangle given its perimeter or area
• Finding the perimeter or area of a rectangle given one of these values

Section 2.4  (14 topics)

• Solving a value mixture problem using a linear equation
• Solving a one-step word problem using the formula d = rt
• Solving a distance, rate, time problem using a linear equation
• Finding the final amount given the original amount and a percentage increase or decrease
• Finding the sale price given the original price and percent discount
• Finding the sale price without a calculator given the original price and percent discount
• Finding the total cost including tax or markup
• Finding the original amount given the result of a percentage increase or decrease
• Finding the percentage increase or decrease: Basic
• Finding the percentage increase or decrease: Advanced
• Computing a percent mixture
• Solving a percent mixture problem using a linear equation
• Finding a percentage of a total amount in a circle graph
• Finding simple interest without a calculator

Section 2.5  (21 topics)

• Translating a sentence by using an inequality symbol
• Translating a sentence into a one-step inequality
• Writing an inequality for a real-world situation
• Graphing a linear inequality on the number line
• Translating a sentence into a compound inequality
• Graphing a compound inequality on the number line
• Set builder and interval notation
• Identifying solutions to a two-step linear inequality in one variable
• Additive property of inequality with integers
• Additive property of inequality with signed fractions
• Multiplicative property of inequality with integers
• Multiplicative property of inequality with signed fractions
• Solving a two-step linear inequality: Problem type 1
• Solving a two-step linear inequality: Problem type 2
- Solving a two-step linear inequality with a fractional coefficient
- Solving a linear inequality with multiple occurrences of the variable: Problem type 1
- Solving a linear inequality with multiple occurrences of the variable: Problem type 2
- Solving a linear inequality with multiple occurrences of the variable: Problem type 3
- Solving a compound linear inequality: Graph solution, basic
- Solving a compound linear inequality: Interval notation
- Solving a decimal word problem using a two-step linear inequality

**Section 2.6** (10 topics)

- Solving an absolute value equation: Problem type 1
- Solving an absolute value equation: Problem type 2
- Solving an absolute value equation: Problem type 3
- Solving an absolute value equation: Problem type 4
- Solving an absolute value equation of the form \(|ax+b| = |cx+d|\)
- Solving an absolute value inequality: Problem type 1
- Solving an absolute value inequality: Problem type 2
- Solving an absolute value inequality: Problem type 3
- Solving an absolute value inequality: Problem type 4
- Solving an absolute value inequality: Problem type 5

**Chapter 2 Supplementary Topics** (3 topics)

- Set builder notation
- Union and intersection of finite sets
- Union and intersection of intervals

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**Ch.3-Graphs and Functions** (60 topics, due on 03/03/2017)

**Section 3.1** (14 topics)

- Reading a point in the coordinate plane
- Plotting a point in the coordinate plane
- Table for a linear equation
- Identifying solutions to a linear equation in two variables
- Finding a solution to a linear equation in two variables
- Graphing a linear equation of the form \(y = mx\)
- Graphing a line given its equation in slope-intercept form: Integer slope
- Graphing a line given its equation in slope-intercept form: Fractional slope
- Graphing a line given its equation in standard form
- Graphing a vertical or horizontal line
- Finding \(x\)- and \(y\)-intercepts given the graph of a line on a grid
- Graphing a line given its \(x\)- and \(y\)-intercepts
- Graphing a line by first finding its \(x\)- and \(y\)-intercepts
- Graphing an absolute value equation of the form \(y = A|x|\)

**Section 3.2** (10 topics)

- Classifying slopes given graphs of lines
- Finding slope given the graph of a line on a grid
- Finding slope given two points on the line
- Finding the slope of horizontal and vertical lines
- Finding the coordinate that yields a given slope
- Graphing a line given its slope and \(y\)-intercept
- Graphing a line through a given point with a given slope
- Finding the slope and \(y\)-intercept of a line given its equation in the form \(y = mx + b\)
- Finding the slope and \(y\)-intercept of a line given its equation in the form \(Ax + By = C\)
- Midpoint of a line segment in the plane

**Section 3.3** (13 topics)

- Writing an equation of a line given its slope and \(y\)-intercept
- Writing an equation and graphing a line given its slope and \(y\)-intercept
- Writing an equation in slope-intercept form given the slope and a point
- Writing an equation of a line given the \(y\)-intercept and another point
- Writing the equation of the line through two given points
- Writing the equations of vertical and horizontal lines through a given point
- Finding slopes of lines parallel and perpendicular to a line given in slope-intercept form
Finding slopes of lines parallel and perpendicular to a line given in the form $Ax + By = C$
Writing equations of lines parallel and perpendicular to a given line through a point
Writing and evaluating a function that models a real-world situation: Advanced
Writing an equation and drawing its graph to model a real-world situation: Advanced
Interpreting the parameters of a linear function that models a real-world situation
Application problem with a linear function: Finding a coordinate given two points

Section 3.4 (4 topics)
- Identifying solutions to a linear inequality in two variables
- Graphing a linear inequality in the plane: Vertical or horizontal line
- Graphing a linear inequality in the plane: Slope-intercept form
- Graphing a linear inequality in the plane: Standard form

Section 3.5 (11 topics)
- Identifying independent and dependent variables from equations or real-world situations
- Identifying functions from relations
- Vertical line test
- Domain and range from ordered pairs
- Table for a linear function
- Evaluating functions: Linear and quadratic or cubic
- Finding outputs of a two-step function with decimals that models a real-world situation: Function notation
- Domain and range from the graph of a discrete relation
- Domain and range from the graph of a continuous function
- Domain and range from the graph of a piecewise function
- Evaluating a rational function: Problem type 1

Section 3.6 (2 topics)
- Identifying linear equations: Advanced
- Graphing a function of the form $f(x) = ax + b$: Integer slope

Chapter 3 Supplementary Topics (6 topics)
- Identifying linear functions given ordered pairs
- Graphing a line by first finding its slope and y-intercept
- Application problem with a linear function: Finding a coordinate given the slope and a point
- Finding inputs and outputs of a two-step function that models a real-world situation: Function notation
- Finding inputs and outputs of a function from its graph
- Graphing an integer function and finding its range for a given domain

Ch.4-Solving Systems of Linear Equations and Inequalities (17 topics, due on 03/24/2017)

Section 4.1 (7 topics)
- Identifying solutions to a system of linear equations
- Classifying systems of linear equations from graphs
- Graphically solving a system of linear equations
- Solving a system of linear equations using substitution
- Solving a system of linear equations using elimination with addition
- Solving a system of linear equations using elimination with multiplication and addition
- Solving a 2x2 system of linear equations that is inconsistent or consistent dependent

Section 4.3 (7 topics)
- Solving a word problem involving a sum and another basic relationship using a system of linear equations
- Solving a word problem using a system of linear equations of the form $Ax + By = C$
- Solving a word problem using a system of linear equations of the form $y = mx + b$
- Solving a value mixture problem using a system of linear equations
- Solving a percent mixture problem using a system of linear equations
- Solving a distance, rate, time problem using a system of linear equations
- Solving a tax rate or interest rate problem using a system of linear equations

Section 4.4 (3 topics)
- Interpreting the graphs of two functions
- Graphing a system of two linear inequalities: Advanced
- Graphing a system of two linear inequalities: Basic
Section 5.1  (5 topics)

- Degree and leading coefficient of a univariate polynomial
- Degree of a multivariate polynomial
- Simplifying a sum or difference of two univariate polynomials
- Simplifying a sum or difference of three univariate polynomials
- Simplifying a sum or difference of multivariate polynomials

Section 5.2  (13 topics)

- Multiplying a univariate polynomial by a monomial with a positive coefficient
- Multiplying a univariate polynomial by a monomial with a negative coefficient
- Multiplying a multivariate polynomial by a monomial
- Multiplying binomials with leading coefficients of 1
- Multiplying binomials with leading coefficients greater than 1
- Multiplying binomials in two variables
- Multiplying conjugate binomials: Univariate
- Multiplying conjugate binomials: Multivariate
- Squaring a binomial: Univariate
- Squaring a binomial: Multivariate
- Multiplying binomials with negative coefficients
- Multiplication involving binomials and trinomials in one variable
- Multiplication involving binomials and trinomials in two variables

Section 5.3  (7 topics)

- Factoring a linear binomial
- Greatest common factor of three univariate monomials
- Greatest common factor of two multivariate monomials
- Factoring out a monomial from a polynomial: Univariate
- Factoring out a binomial from a polynomial: GCF factoring, basic
- Factoring a univariate polynomial by grouping: Problem type 1
- Factoring a univariate polynomial by grouping: Problem type 2

Section 5.4  (9 topics)

- Factoring out a monomial from a polynomial: Multivariate
- Factoring a quadratic with leading coefficient 1
- Factoring a quadratic in two variables with leading coefficient 1
- Factoring out a constant before factoring a quadratic
- Factoring a quadratic with leading coefficient greater than 1: Problem type 1
- Factoring a quadratic with leading coefficient greater than 1: Problem type 2
- Factoring a quadratic with leading coefficient greater than 1: Problem type 3
- Factoring a quadratic by the ac-method
- Factoring a quadratic in two variables with leading coefficient greater than 1

Section 5.5  (7 topics)

- Factoring a perfect square trinomial with leading coefficient 1
- Factoring a perfect square trinomial with leading coefficient greater than 1
- Factoring a perfect square trinomial in two variables
- Factoring a difference of squares in one variable: Basic
- Factoring a difference of squares in one variable: Advanced
- Factoring a difference of squares in two variables
- Factoring a sum or difference of two cubes

Section 5.6  (5 topics*)

- Factoring out a constant before factoring a quadratic
- Factoring a polynomial involving a GCF and a difference of squares: Univariate
- Factoring a polynomial involving a GCF and a difference of squares: Multivariate
- Factoring a product of a quadratic trinomial and a monomial
- Factoring with repeated use of the difference of squares formula

Section 5.7  (6 topics)

- Solving an equation written in factored form
- Finding the roots of a quadratic equation of the form $ax^2 + bx = 0$
• Finding the roots of a quadratic equation with leading coefficient 1
• Finding the roots of a quadratic equation with leading coefficient greater than 1
• Solving a quadratic equation needing simplification
• Solving a word problem using a quadratic equation with rational roots

(*) Some topics in this section are also covered in a previous section of this Objective.
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Ch.6-Rational Expressions  (80 topics, due on 04/21/2017)

Section 6.1  (12 topics)

• Simplifying a ratio of multivariate monomials: Advanced
• Restriction on a variable in a denominator: Linear
• Restriction on a variable in a denominator: Quadratic
• Simplifying a ratio of factored polynomials: Linear factors
• Simplifying a ratio of polynomials using GCF factoring
• Simplifying a ratio of linear polynomials: 1, -1, and no simplification
• Simplifying a ratio of polynomials by factoring a quadratic with leading coefficient 1
• Simplifying a ratio of polynomials: Problem type 1
• Simplifying a ratio of polynomials: Problem type 2
• Simplifying a ratio of polynomials: Problem type 3
• Writing equivalent rational expressions with monomial denominators
• Writing equivalent rational expressions with polynomial denominators

Section 6.2  (8 topics)

• Multiplying rational expressions involving multivariate monomials
• Multiplying rational expressions made up of linear expressions
• Multiplying rational expressions involving quadratics with leading coefficients of 1
• Multiplying rational expressions involving quadratics with leading coefficients greater than 1
• Dividing rational expressions involving multivariate monomials
• Dividing rational expressions involving linear expressions
• Dividing rational expressions involving quadratics with leading coefficients of 1
• Dividing rational expressions involving multivariate quadratics

Section 6.3  (18 topics)

• Finding the LCD of rational expressions with linear denominators: Relatively prime
• Finding the LCD of rational expressions with linear denominators: Common factors
• Finding the LCD of rational expressions with quadratic denominators
• Writing equivalent rational expressions involving opposite factors
• Adding rational expressions with common denominators and monomial numerators
• Adding rational expressions with common denominators and binomial numerators
• Adding rational expressions with common denominators and GCF factoring
• Adding rational expressions with common denominators and quadratic factoring
• Adding rational expressions with different denominators and a single occurrence of a variable
• Adding rational expressions with denominators ax and bx: Basic
• Adding rational expressions with denominators ax and bx: Advanced
• Adding rational expressions with denominators ax^n and bx^m
• Adding rational expressions with multivariate monomial denominators: Basic
• Adding rational expressions with linear denominators without common factors: Basic
• Adding rational expressions with linear denominators without common factors: Advanced
• Adding rational expressions with linear denominators with common factors: Basic
• Adding rational expressions with denominators ax-b and b-ax
• Adding rational expressions involving different quadratic denominators

Section 6.4  (11 topics)

• Complex fraction without variables: Problem type 1
• Complex fraction without variables: Problem type 2
• Complex fraction involving univariate monomials
• Complex fraction involving multivariate monomials
• Complex fraction: GCF factoring
• Complex fraction: Quadratic factoring
• Complex fraction made of sums involving rational expressions: Problem type 1
• Complex fraction made of sums involving rational expressions: Problem type 2
• Complex fraction made of sums involving rational expressions: Problem type 3
• Complex fraction made of sums involving rational expressions: Multivariate
• Complex fraction with negative exponents: Problem type 1
Section 6.5 (4 topics)
- Dividing a polynomial by a monomial: Univariate
- Dividing a polynomial by a monomial: Multivariate
- Polynomial long division: Problem type 1
- Polynomial long division: Problem type 2

Section 6.6 (14 topics)
- Solving a proportion of the form \( \frac{x}{a} = \frac{b}{c} \)
- Solving a proportion of the form \( \frac{x+a}{b} = \frac{c}{d} \)
- Solving a proportion of the form \( \frac{a}{x+b} = \frac{c}{x} \)
- Solving a rational equation that simplifies to linear: Denominator \( x \)
- Solving a rational equation that simplifies to linear: Denominator \( x+a \)
- Solving a rational equation that simplifies to linear: Denominators \( a, x, or ax \)
- Solving a rational equation that simplifies to linear: Denominators \( ax \) and \( bx \)
- Solving a rational equation that simplifies to linear: Like binomial denominators
- Solving a rational equation that simplifies to linear: Unlike binomial denominators
- Solving a rational equation that simplifies to linear: Factorable quadratic denominator
- Solving a rational equation that simplifies to quadratic: Denominator \( x \)
- Solving a rational equation that simplifies to quadratic: Binomial denominators, constant numerators
- Solving a rational equation that simplifies to quadratic: Binomial denominators and numerators
- Word problem on proportions: Problem type 1

Section 6.7 (4 topics)
- Solving for a variable in terms of other variables in a rational equation: Problem type 1
- Solving for a variable in terms of other variables in a rational equation: Problem type 2
- Word problem involving multiple rates
- Solving a work problem using a rational equation

Section 6.8 (5 topics)
- Writing a direct variation equation
- Word problem on direct variation
- Writing an inverse variation equation
- Word problem on inverse variation
- Word problem on combined variation

Chapter 6 Supplementary Topics (4 topics)
- Simplifying a ratio of multivariate polynomials
- Adding rational expressions with multivariate monomial denominators: Advanced
- Solving a rational equation that simplifies to quadratic: Proportional form, basic
- Word problem on inverse proportions

Ch.7-Rational Exponents and Radicals (68 topics, due on 04/22/2017)

Section 7.1 (16 topics)
- Square root of a perfect square
- Finding all square roots of a number
- Square root of a rational perfect square
- Square roots of perfect squares with signs
- Cube root of an integer
- Finding \( n^{th} \) roots of perfect \( n^{th} \) powers with signs
- Finding the \( n^{th} \) root of a perfect \( n^{th} \) power fraction
- Converting between radical form and exponent form
- Rational exponents: Unit fraction exponents and whole number bases
- Rational exponents: Unit fraction exponents and bases involving signs
- Rational exponents: Non-unit fraction exponent with a whole number base
- Rational exponents: Negative exponents and fractional bases
- Rational exponents: Product rule
- Rational exponents: Quotient rule
- Rational exponents: Products and quotients with negative exponents
- Rational exponents: Power of a power rule

Section 7.2 (23 topics*)
- Square roots of integers raised to even exponents
Introduction to simplifying a radical expression with an even exponent
Square root of a perfect square monomial
Using absolute value to simplify square roots of perfect square monomials
Cube root of an integer
Finding the nth root of a perfect nth power monomial
Using absolute value to simplify higher radical expressions
Simplifying the square root of a whole number less than 100
Simplifying the square root of a whole number greater than 100
Simplifying a radical expression with an even exponent
Introduction to simplifying a radical expression with an odd exponent
Simplifying a radical expression with an odd exponent
Simplifying a radical expression with two variables
Simplifying a higher root of a whole number
Introduction to simplifying a higher radical expression
Simplifying a higher radical expression: Univariate
Simplifying a higher radical expression: Multivariate
Square root multiplication: Advanced
Introduction to simplifying a product of radical expressions: Univariate
Simplifying a quotient of square roots
Rationalizing a denominator: Quotient involving square roots
Rationalizing a denominator: Square root of a fraction
Rationalizing a denominator: Quotient involving a monomial

Section 7.3 (16 topics)

Introduction to square root addition or subtraction
Square root addition or subtraction
Square root addition or subtraction with three terms
Introduction to simplifying a sum or difference of radical expressions: Univariate
Simplifying a sum or difference of radical expressions: Univariate
Square root multiplication: Basic
Simplifying a product of radical expressions: Univariate
Simplifying a product of radical expressions: Multivariate
Introduction to simplifying a product involving square roots using the distributive property
Simplifying a product involving square roots using the distributive property: Basic
Simplifying a product involving square roots using the distributive property: Advanced
Special products of radical expressions: Conjugates and squaring
Simplifying a quotient involving a sum or difference with a square root
Rationalizing a denominator using conjugates: Integer numerator
Rationalizing a denominator using conjugates: Square root in numerator
Rationalizing a denominator using conjugates: Variable in denominator

Section 7.4 (8 topics)

Introduction to solving a radical equation
Solving a radical equation that simplifies to a linear equation: One radical, basic
Solving a radical equation that simplifies to a linear equation: One radical, advanced
Solving a radical equation that simplifies to a linear equation: Two radicals
Solving a radical equation with two radicals that simplifies to sqrt(x) = a
Solving a radical equation that simplifies to a quadratic equation: One radical, basic
Solving a radical equation that simplifies to a quadratic equation: One radical, advanced
Solving a radical equation that simplifies to a quadratic equation: Two radicals

Section 7.5 (6 topics)

Using i to rewrite square roots of negative numbers
Simplifying a product and quotient involving square roots of negative numbers
Adding or subtracting complex numbers
Multiplying complex numbers
Dividing complex numbers
Simplifying a power of i

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Ch.8-Quadratic Equations and Inequalities (13 topics, due on 04/27/2017)

Section 8.1 (5 topics)

Solving an equation of the form x^2 = a using the square root property
- Solving a quadratic equation using the square root property: Exact answers, basic
- Solving a quadratic equation using the square root property: Exact answers, advanced
- Completing the square
- Solving a quadratic equation by completing the square: Exact answers

Section 8.2  (3 topics)

- Applying the quadratic formula: Exact answers
- Solving a quadratic equation with complex roots
- Solving a word problem using a quadratic equation with irrational roots

Section 8.3  (2 topics)

- Writing a quadratic equation given the roots and the leading coefficient
- Discriminant of a quadratic equation

Section 8.5  (1 topic)

- Domain of a rational function: Excluded values

Chapter 8 Supplementary Topics  (2 topics)

- Solving an equation using the odd-root property: Problem type 1
- Solving an equation using the odd-root property: Problem type 2

Ch.9-Quadratic Functions and the Conic Sections  (9 topics, due on 04/28/2017)

Section 9.1  (8 topics)

- Graphing a function of the form f(x) = ax^2
- Graphing a function of the form f(x) = ax^2 + c
- Finding the vertex, intercepts, and axis of symmetry from the graph of a parabola
- Graphing a parabola of the form y = (x-h)^2 + k
- Graphing a parabola of the form y = x^2 + bx + c
- Graphing a parabola of the form y = ax^2 + bx + c: Integer coefficients
- Finding the x-intercept(s) and the vertex of a parabola
- Finding the maximum or minimum of a quadratic function

Section 9.2  (1 topic)

- Distance between two points in the plane: Exact answers