



SAN IGNACIO
UNIVERSITY
MIAMI, USA

Date		Credits	3
Course Title	College Algebra II	Course Number	MA 20210
Pre-requisite (s)	MAC 1105	Co-requisite (s)	None
Hours	45		

Place and Time of Class Meeting

San Ignacio University
3905 NW 107 Avenue, Suite 301
Miami, FL 33178

Name and Contact Information of Instructor

Book required

(San Ignacio University recognizes the use of the textbook in the classroom as part of the educational methodology and strategy applied in diverse materials. The textbook is part of the curriculum and is used to reach the student in an effective manner in the classroom. Every student is expected to acquire and use the textbook.)

Intermediate Algebra, Bittinger, Marvin, 11th edition
©2011 | Pearson | Published: 12/25/2009
ISBN-10: 03-321-61336-8 | ISBN-13: 978-0-321-61336-3

Classroom expectations for students

Attendance Policy

Students are expected to attend all scheduled university classes for the courses that they are registered for and to achieve the goals set forth by each class instructor. Attendance is taken daily. Enrolled students are permitted no more than **2** “free” absences in one semester. Students missing **3-5** classes over the course of the semester will receive a one-letter grade deduction from their final course grade; missing more than **6** classes will result in failure of the course regardless of grade average. It is the student's responsibility to arrange to make up work missed because of an absence.



Student Tardiness Policy

A student is considered tardy/late if he/she comes to class 15 minutes late. With three tardies the student accumulates one full absence. If the student misses half of the class period, it is a full absence. When a student has more than 6 tardies, the instructor will contact the San Ignacio University Coordinator of Student Affairs and Academic Department and request an intervention session with the student. The goal of the intervention session is to develop and implement an intervention program to help students learn new ways to save and manage time.

NOTE: Plagiarism is defined as the use, without proper acknowledgment, of the ideas, phrases, sentences, or larger units of discourse from another writer or speaker. Plagiarism includes the unauthorized copying of software and the violation of copyright laws. Students who commit plagiarism will obtain a grade of “Failure” on their exam or assignment.

Course Description (must correspond exactly to Catalog description)

The purpose of this course is to help the student to understand a complex algebra. Students are expected to know the basics from University algebra I and give practical solutions to the problems presented in class just like it is done at the work place. Topics include: Exponential and Logarithmic functions, Quadratic systems, Polynomial functions, and Linear functions.

Learning Objectives

At the end of this course student will be able to:

- Describe the set of real numbers.
- Discuss properties of exponents and scientific notations.
- Solve linear equations and inequalities.
- Determine domain and range and graph equations.
- Explain systems of equations in two variables and solve problems.
- Explain how to multiply polynomial and factor trinomials.
- Discuss rational expressions and functions, and multiply, divide, and simplify the equations.
- Simplify radical expressions, rational numbers and solve radical equations.
- Demonstrate how to solve quadratic equations.
- Explain how to graph functions.
- Discuss inverse and composite functions.
- Solve exponential and logarithmic equations.
- Understand parabolas, ellipses, and hyperbolas.



Week Outline and Schedule

DATE		WEEK 1
SPECIFIC OBJECTIVES		<ul style="list-style-type: none"> • Describe the course. • Use roster notation and set builder notation to name sets • Distinguish among various kinds of real numbers. • Determine which of two numbers is greater and indicate which is greater. • Graph inequalities on the number line. • Find the absolute value of a real number. • Rewrite expressions with whole number exponents, and evaluate exponential expressions. • Rewrite expressions with or without negative integers as exponents. • Simplify expressions using the rules for order of operation. • Translate a phrase into an algebraic expression. • Evaluate an algebraic expression by substitution.
TOPIC (S)		<ul style="list-style-type: none"> • Discuss Syllabus • Discuss Library Orientation Course, Instructor to verify completion • Explain the operation of real numbers. • Discuss the set notation and the set of real numbers. • Explain the order for real numbers. • Illustrate graphing inequalities on the number line. • Describe and illustrate absolute value. • Review operations with real numbers. • Illustrate how to handle opposites or additive inverses. • Explain exponential notation. • Discuss negative integers as exponents. • Explain the order of operations.
LEARNING ACTIVITIES		Discussion of Syllabus Class activities completing problems. Group discuss
HOMEWORK & ASSIGNED READINGS		Review the Syllabus Complete the Library Orientation Course. Instructor to verify completion. Homework: Read pages 1-72 and Complete Chapter R Test on page 71 and submit with worksheet.
DATE		WEEK 2
SPECIFIC OBJECTIVES		<ul style="list-style-type: none"> • Determine whether two expressions are equivalent by completing a table of values. • Find equivalent fraction expressions by multiplying by 1, and simplify

	<p>fraction expressions.</p> <ul style="list-style-type: none"> • Use the cumulative laws and the associative laws to find equivalent expressions. • Use the distributive laws to find equivalent expressions by multiplying and factoring. • Simplify an expression by collecting like terms. • Simplify an expression by removing parentheses and collecting like terms. • Use exponential notation in multiplication and division. • Use exponential notation in raising a power to a power, and in raising a product of a quotient to a power. • Convert between decimal notation and scientific notation, and use scientific notation with multiplication and division.
TOPIC (S)	<ul style="list-style-type: none"> • Discuss Final Class Project & Presentation, • List of Topics • Discuss algebraic expressions and their use. • Explain how to translate algebraic expressions. • Illustrate how to evaluate algebraic expressions. • Discuss equivalent expressions. • Explain equivalent fraction expressions. • Discuss the commutative laws and the associative laws. • Explain the distributive laws. • Review how to simplify algebraic expressions. • Explain properties of exponents and scientific notation. • Discuss raising powers to powers and products and quotients to powers. • Illustrate scientific notation.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Homework: Read pages 74-110 complete the mid chapter review on page 111 and submit the worksheet. Answer the questions 33-38 on page 112 and be prepared to discuss in class.</p>
DATE	WEEK 3
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Determine whether a given number is a solution of a given equation. • Solve equations using the addition principle. • Solve equations using the multiplication principle. • Solve equations using the addition principle and the multiplication principle together, removing parentheses where appropriate. • Evaluate formulas and solve a formula for a specified letter.



	<ul style="list-style-type: none"> • Solve applied problems by translating to equations. • Solve basic motion problems.
TOPIC (S)	<ul style="list-style-type: none"> • Discussion of student topic selection, library research, tentative bibliography. • Equations and solutions. • The addition principle • The multiplication principle • Using the principles together • Formulas and applications. • Evaluating and solving formulas. • Five steps for problem solving. • Basic motion problems.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Investigate concepts and kinds of objectives. Library Research. Develop Tentative Bibliography Due: Project Topic Due: Tentative Bibliography Homework: Read pages 113-156 complete the chapter test and submit with the worksheet. Answer questions 1-6 on page 156</p>
DATE	WEEK 4
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Determine whether a given number is a solution of an inequality. • Write interval notation for the solution or the graph of an inequality. • Solve an inequity using the addition principle and the multiplication principle and graph the inequality. • Solve applied problems by translating to inequalities. • Find the intersection of two sets. Solve the graph conjunctions of inequalities. • Solve applied problems involving conjunctions and disjunctions of inequalities. • Simplify expressions containing absolute value symbols. • Find the distance between two points on the number line. • Solve equations with absolute value expressions. • Solve inequalities with absolute value expressions.
TOPIC (S)	<ul style="list-style-type: none"> • Due: Project Topic • Due: Tentative Bibliography • Discuss sets, inequalities, and interval notation. • Illustrate how to solve inequalities. • Discuss applications and problem solving.



	<ul style="list-style-type: none"> • Review intersections of sets and conjunctions of inequalities. • Explain union of sets and disjunctions of inequalities. • Discuss properties of absolute value. • Illustrate how to determine distance on the number line. • Discuss equations with absolute value. • Explain equations with two absolute value expressions. • Discuss inequalities with absolute value.
LEARNING ACTIVITIES	<p>Discussion Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project Homework: Page 160-194 Complete Mid Chapter review on page 193 and submit with the worksheet Answer questions 32-35 on page 194 Read page 195-240 Complete the test on page 238 and submit with the worksheet. Answer questions 1-6 on page 237 Complete the Cumulative Review on page 241 and submit with the worksheet.</p>
DATE	WEEK 5
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Plot points associated with ordered pairs of numbers. • Determine whether an ordered pair of numbers is a solution of an equation. • Graph linear equations using tables. • Graph nonlinear equations using tables. • Determine whether a correspondence is a function. • Given a function described by an equation, find function values (outputs) for specified values (inputs). • Draw the graph of a function. • Determine whether a graph is that of a function using the vertical line test. • Solve applied problems involving functions and their graphs. • Find the domain and the range of a function. • Find the y intercept of a line from an equation. • Given two points on a line, find the slope. • Given a linear equation, derive the equivalent slope intercept equation and determine the slope of the y-intercept. • Graph linear equations using intercepts.
TOPIC (S)	<ul style="list-style-type: none"> • Explain how to plot ordered pairs. • Explain how to find the solution of equations. • Describe how to graph linear equations.



	<ul style="list-style-type: none"> • Explain how to graph nonlinear equations. • Explain how to identify functions. • Illustrate the step to find function values. • Explain the process to graph functions. • Illustrate the vertical line test. • Review the applications of functions and their graphs. • Illustrate how to find domain and range. • Given a linear equation in slope-intercept form, using the slope and y-intercept to graph the line. • Graph linear equations of the form $x=a$ or $y=b$, • Given the equation of two lines, determine whether their graphs are parallel or whether they are perpendicular. • Find an equation of a line when the slope and the y-intercept are given. • Find an equation of a line when the slope and a point are given. • Given a line and a point not of the given line, find an equation of the line parallel to the line and containing point, and find an equation of the line perpendicular to the line and containing the point. • Solve applied functions involving linear functions.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project Read pages 243-283 complete the Mid Chapter Review on page 282 and submit with worksheet. Answer questions 23-30 on page 283</p>
DATE	WEEK 6
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • EXAM I • Solve a system of two linear equations or two functions by graphing and determine whether a system is consistent or inconsistent and whether the equations in a system are dependent or interdependent. • Solve systems of equations in two variables by the substitution method. • Solve applied problems by solving systems of two equations using substitution. • Solve systems of equations in two variables by the elimination method. • Solve problems by solving systems of two equations using elimination. • Solve applied problems involving total values and mixture using systems of two equations. • Solve problems involving motion using systems of two equations.
TOPIC (S)	<ul style="list-style-type: none"> • Illustrate how to solve systems of equations graphically. • Explain dependent equations and interdependent equations.

	<ul style="list-style-type: none"> • Discuss the substitution method. • Explain the process to solve applied problems involving two equations. • Illustrate how to solve problems utilizing the elimination method. • Discuss the strengths and weaknesses of various methods. • Explain how to solve applied problems using elimination. • Illustrate the process of solving total value problems and mixture problems. • Explain how to solve motion problems.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Read pages 284-322 complete the test on page 317 and submit with the worksheet. Complete the cumulative review on page 321 and submit with the worksheet.</p>
DATE	WEEK 7
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Solve systems of three equations in three variables. • Solve applied problems using systems of three equations. • Determine whether an ordered pair of numbers is a solution of an inequality in a solution of an inequality in two variables. • Graph linear inequalities in two variables. • Graph systems of linear inequalities and find coordinates for any vertices.
TOPIC (S)	<ul style="list-style-type: none"> • Illustrate how to solve systems in three variables. • Discuss how to use three equations. • Explain how to solve inequalities in two variables. • Discuss graphing inequalities in two variables. • Explain how to solve two linear inequalities in two variables.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project. Homework: Read page 324-assigned reading for next class session. Complete Mid chapter review page 360 and submit with the worksheet. Complete test on page 407 and submit with the worksheet. Complete the cumulative review on page 409 and submit with the worksheet.</p>
DATE	WEEK 8
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Identify the degree of each term and the degree of a polynomial; identify terms, coefficients, monomials, binomials, and trinomials, identify the leading coefficient, and the constant term; and arrange polynomials in ascending order or descending order.

	<ul style="list-style-type: none"> • Evaluate a polynomial function for given inputs. • Collect the terms in a polynomial and add polynomials. • Find the opposite of a polynomial and subtract polynomials. • Multiply and two polynomials. • Use the FOIL method to multiply two binomials. • Use a rule to multiply a sum and a difference of the same two terms. • Explain functions to solve second degree polynomials.
TOPIC (S)	<ul style="list-style-type: none"> • Factor polynomials whose terms have a common factor. • Factor certain polynomials with four terms by grouping. • Describe how to factor trinomials. • Illustrate the FOIL method. • Factor trinomial squares. • Factor differences of squares. • Factor certain polynomials with four terms by grouping and possibly using the factoring of a trinomial square or the difference of squares. • Factor sums and differences of cubes. • Factor polynomials completely using a variety of methods. • Solve quadratic and other polynomial equations by first factoring and the using the principle of zero products • Solve applied problems involving quadratic and other polynomial equations that can be solved by factoring.
LEARNING ACTIVITIES	<p>Participate in a forum.</p> <p>Class review of exercises.</p> <p>Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project</p> <p>Homework: Read pages 411-498</p> <p>Complete Mid Chapter Review on page 450 and submit with worksheet.</p> <p>Complete test on page 495 submit with worksheet.</p>
DATE	WEEK 9
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Find all numbers for which a rational expression is not defined or those are not in the domain of a rational function, and state the domain of the function. • Multiply a rational expression by 1, using expressions like A/A. • Simplify rational expression. • Multiply rational expressions and simplify. • Divide rational expressions. • Find the LCM of several algebraic expressions by factoring. • Add and subtract rational expressions. • Simplify combined additions and subtractions of rational expressions. • Divide a polynomial by a monomial.



	<ul style="list-style-type: none"> • Divide a polynomial by a divisor that is not a monomial, and if there is a remainder, express the result in two ways. • Use synthetic division to divide a polynomial by a binomial of the x type. • Simplify complex rational expressions.
TOPIC (S)	<ul style="list-style-type: none"> • Solve rational equations. • Solve word problems and certain basic problems using rational equations. • Solve applied problems involving proportions. • Solve motion problems using rational equations. • Solve a formula for a letter. • Find an equation of direct variation given a pair of values of the variables. • Solve applied problems involving direct variation. • Find an equation of inverse variation given a pair of values of the variables. • Solve applied problems involving inverse variation. • Find equations of other kinds of variation given values of the variables. • Solve applied problems involving other kinds of variations. • Illustrate how to write problems with or without rational exponents, and simplify, if possible. • Describe how to write expressions without negative exponents, and simplify. • Define the laws of exponents with rational exponents. • Explain how to use rational exponents to simplify radical expressions. • Illustrate the process to multiply and simplify radical expressions. • Explain how to divide and simplify radical expressions. • Explain how to add and subtract with radical notation and simplify. • Illustrate how to multiply expressions involving radicals in which some factors contain more than one term
LEARNING ACTIVITIES	<p>Analysis of the examples raised in class. Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project Homework: Read pages 499-534 Complete the Mid Chapter Review on page 533 and submit with worksheet.</p>
DATE	WEEK 10
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Find principal square roots and their opposites, approximate square roots.



	<ul style="list-style-type: none"> • Identify radicands; find outputs of square roots functions. • Describe how to graph square root functions. • Illustrate how to find the domains of square root functions. • Simplify radical expressions with perfect square radicands. • Find cube root, simplifying certain expressions. • Find outputs of cube root functions. • Simplify expressions involving odd roots and even roots.
TOPIC (S)	<ul style="list-style-type: none"> • Write expressions with or without rational exponents and simplify. • Describe how to write expressions without negative exponents and simplify. • Illustrate how to use the laws of exponents with rational exponents. • Explain how to use rational exponents to simplify radical expressions. • Demonstrate how to multiply and simplify radical expressions. • Explain the process to divide and simplify radical expressions. • Illustrate to procedure to add or subtract with radical notation and simplify. • Explain the process to multiply expressions involving radicals, in which some factors contain more than one term.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Continue research and work on final project Homework: Read pages 535-578 Complete test on page 575 and submit with worksheet. Complete Cumulative Review on page 577 and submit with worksheet.</p>
DATE	WEEK 11
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Rationalize the denominator of radical expression having one term in the denominator. • Rationalize the denominator of a radical expression having two terms in the denominator. • Solve radical equations with one radical term. • Solve radical equations with two radical terms. • Solve applied problems involving radical equations. • Solve applied problems involving the Pythagorean Theorem and powers and roots. • Express imaginary numbers as bi, where b is a nonzero real number and complex numbers. • Illustrate how to add and subtract complex numbers.
TOPIC (S)	<ul style="list-style-type: none"> • Explain the process to multiply complex numbers. • Demonstrate how to write expressions involving powers of i.

	<ul style="list-style-type: none"> • Find conjugates of complex numbers and divide complex numbers. • Determine whether a given complex number is a solution of an equation. • Explain the principle of powers. • Discuss applications involving powers and roots. • Define imaginary and complex numbers. • Illustrate the algebraic and graphical connection.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Due: First Draft of Final Project Read pages 579-623 Complete Mid Chapter Review on page 622 and submit with worksheet. Read pages 624-670 Complete the test on page 667 and submit with worksheet. Complete Cumulative review on page 669 and submit with worksheet.</p>
DATE	WEEK 12
SPECIFIC OBJECTIVES	<p>MIDTERM EXAM II</p> <ul style="list-style-type: none"> • Solve quadratic equations using the principle of square roots and find the x-intercepts of the graph of a related function. • Solve quadratic equations by completing the square. • Solve applied problems using quadratic equations. • Solve quadratic equations using the quadratic formula. • Illustrate solving equations utilizing a calculator. • Solve applied problems involving quadratic equations. • Solve a formula for a specific letter. • Illustrate how to graph quadratic functions and label the vertex and the line of symmetry. • Explain how to graph quadratic functions squared. • Illustrate how to find the vertex, the line of symmetry, and the maximum or minimum value and graph the function. • Explain how to find the intercepts of a quadratic function. • Solve maximum-minimum problems involving quadratic functions. • Illustrate how to fit a quadratic function to a set of data to form a mathematical model and solve related applied problems. • Solve quadratic inequalities and other polynomial inequalities. • Solve rational inequalities.
TOPIC (S)	<ul style="list-style-type: none"> • Determine the nature of the solutions of a quadratic equation. • Illustrate how to write a quadratic equation having two given numbers as solutions.

	<ul style="list-style-type: none"> • Solve equations that are quadratic in form. • Define the principles of square roots. • Explain the process to complete the square. • Illustrate the process to solve a formula for a letter. • Explain the discriminant and illustrate the process of solving an equation. • Illustrate how to draw the graph of a function. • Explain the process to graph linear equations using intercepts. • Discuss how to find the vertex of parabolas using formulas. • Demonstrate how to write interval notations for solution sets on a graph of an inequality. • Illustrate the process to solve a rational inequality. • Discuss axis of symmetry. • Illustrate the principle of square roots. • Discuss how to clear the fraction using the principle of zero products in reverse using FOIL.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Read pages 672-721 Complete the Mid Chapter Review on page 720 and submit with worksheet.</p>
DATE	WEEK 13
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Demonstrate how to graph exponential equations and functions. • Explain the procedure to graph exponential equations in which x and y have been interchanged. • Solve applied problems involving applications of exponential functions and their graphs. • Find the inverse of a relation if it is described as a set of ordered pairs or as an equation. • Explain how a given function determines whether it is one to one and has an inverse that is a function. • Find a formula for the inverse of a function, if it exists, and graph inverse relations and functions. • Find the composition of functions and express certain functions as a composition of functions. • Determine whether a function is an inverse by checking its composition with the original function.
TOPIC (S)	<ul style="list-style-type: none"> • Explain how to graph logarithmic functions. • Illustrate how to convert from exponential equations to logarithmic



	<p>equations and from logarithmic equations to exponential equations.</p> <ul style="list-style-type: none"> • Explain how to solve logarithmic equations. • Explain the process to find logarithms on a calculator. • Discuss how to express the logarithms of a product as a sum of logarithm and conversely. • Express the logarithm of a power as a product. • Express the logarithm of a quotient as a difference of logarithms. • Explain how to convert from logarithms of products, quotients, and powers to expressions in terms of individual logarithms and conversely. • Illustrate how to simplify expressions of the logarithm type.
LEARNING ACTIVITIES	<p>Participate in a forum. Class review of exercises. Group discussion of test.</p>
HOMEWORK & ASSIGNED READINGS	<p>Editing & Revision of Final Project Read pages 722-764 Complete the test on page 760 and submit with worksheet. Complete the cumulative review on page 763 and submit with the worksheet.</p>
DATE	WEEK 14
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Explain how to find logarithms or powers, base e, using a calculator. • Explain how to use the change of base formula to find logarithms with bases other than e or 10. • Explain how to graph exponential and logarithmic functions of base e. • Describe how to solve exponential equations. • Demonstrate the process to solve logarithmic equations. • Explain how to solve applied problems involving logarithmic functions. • Illustrate how to solve applied problems involving exponential functions. • Explain common logarithmic. • Discuss exponential growth rate.
TOPIC (S)	<ul style="list-style-type: none"> • Explain the base e and the natural logarithms. • Describe how to change logarithm bases. • Illustrate how to solve exponential and logarithmic equations. • Explain the principle of logarithmic equality. • Demonstrate the process to use when solving logarithmic equations. • Explain acoustics and how high is the sound level in decibels. • Demonstrate how to calculate annual compounded interest. • Explain carbon dating.
LEARNING	Participate in a forum.

ACTIVITIES	Class review of exercises. Group discussion of test.
HOMEWORK & ASSIGNED READINGS	Editing & Revision of Final Project Read pages 765-820 Complete the Cumulative Review on page 815 and submit with the worksheet.
DATE	WEEK 15
SPECIFIC OBJECTIVES	<ul style="list-style-type: none"> • Final Project • Final Presentation • Final Exam • Discuss how to graph parabolas. • Explain how to use the distance formula to find the distance between two points whose coordinates are known. • Use the midpoint formula to find the midpoint of a segment when the coordinates of its endpoints are known.
TOPIC (S)	<ul style="list-style-type: none"> • Illustrate how given an equation of a circle the center and radius can be found and graphed. • Explain how to write an equation of a circle and how to graph the circle. • Demonstrate how to graph the standard form of the equation of an ellipse. • Discuss how to graph the standard form of the equation of a hyperbola. • Solve systems of equations in which at least one equation is nonlinear. • Solve applied problems involving nonlinear systems.
LEARNING ACTIVITIES	Participate in a forum. Class review of exercises. Group discussion of test.
HOMEWORK & ASSIGNED READINGS	Prepare a 500 word analysis of the course. Summarize what you learned during the class, pick a topic that you feel you can use and describe why you believe it will be beneficial and how you plan on incorporating it in your everyday activities.

Topical Outline and Schedule

Instructional Methods

In developing methodological strategies, it is best to discuss them between teachers and students in an environment of freedom and mutual agreement in order to ensure that the students make them their own and take responsibility for their execution and for attaining the goals of this course.



The following strategies may be used in this class:

1. A review of the questions at the end of each chapter.
2. Check of the reading.
3. Analysis of assigned readings.
4. Group discussions.
5. Individual and group discussions.
6. Preparation of reports.
7. Preparation of a didactic plan.
8. Carrying out a micro-class.

Additional Instructional Materials and References

- 1) Beginning and Intermediate Algebra - 6th edition by Gustafson, David R. January 1, 2010
- 2) Beginning and Intermediate Algebra – 5th edition by Martin-Gay, K. Elayn February 9, 2012
- 3) Do Math Workbook to Accompany Elementary and Intermediate Algebra - 2nd edition by Sullivan, Michael, Struve, Katherine R and Mazzarella, Janet February 3, 2009

Assessment Criteria and Methods of Evaluating Students

96 – 100%	→ A
90 – 95%	→ A-
87 – 89%	→ B+
83 – 86%	→ B
80 – 82%	→ B-
77 – 79%	→ C+
73 – 76%	→ C
70 – 72%	→ C-
67 – 69%	→ D+
63 – 66%	→ D
60 – 62 %	→ D-
< 59%	→ F

Do not count on a curve!

Generally, the grades “A” through “C-” are considered passing grades. Grades “W” and “I” indicate that no grades were earned for the course. A “W” grade indicates that the student withdrew from the course. An



"I" grade indicates that the student was passing the course, but failed to complete all the required course work. The instructor, in his/her discretion may grant an "I" grade instead of an "F", pending completion of the course work by the student within a specified time arranged by the instructor and told to the student. It is the student's responsibility to follow-up with the instructor to complete the course work. If the course work is not completed by the arranged time, the "I" grade becomes an "F".

Distribution of Grade Elements

Homework: 15%

Exams I, II, III: 30% (10% each)

Final Presentation: 30% (15% each)

Final Research Project: 25%

Total: 100 %

Date Syllabus Was Last Reviewed: Date: 01-21-13