Three Rivers Community College
MATH 172 College Algebra
Spring 2014

Course Syllabus: Math 172-6 College Algebra
CRN: 12084 **Credit Hours:** 3 **Classroom/Times: Rm D109 MW 3:30 - 4:45**
REQUIRED TEXTBOOK: College Algebra, by Beecher, Penna, and Bittinger
Instructor: John A. Donato M.Ed.
Office Hours: after class and before class by appt.
Office Location: Classroom or Cafeteria
Phone Number: (401) 596-6935 (H) (401) 330-0170 (C)
E-mail: (preferred contact e-mail) **jdonato2@cox.net** or jdonato@trcc.commnet.edu

Grading: Tests & Quizzes will count for 75% of your grade. Homework will be 5% and the Final will count for 20%.
Class Objectives: Are listed at the beginning of each section of each chapter in the text.
Classroom Procedures:

- Cell phone – set cell phone on vibrate or off. Calls may be made from the hallway. Please remove hats, hoods, etc.
- Attendance will be taken before each class. If you miss a class please get notes from other students. Once you have done this I will be happy to answer questions you have about the material but I will not repeat the presentations that you have missed.
- A non-graphing, non–programmable scientific calculator is needed for this course
- Make up tests/quizzes due to absence: are permitted the day the students returns to class. The student is responsible for informing the instructor, in advance, that he/she intends to take the missed test/quiz before he/she returns to class. Please allow a 24 hr. notice for timely response from the instructor. Times may be arranged before or after the returning class.
- Extra help is available thru support services. The instructor is also available for help before and after classes with notice.
- Students requiring special disability accommodations, please contact TRCC Disabilities Service Providers in Room A-119
- Suggestions for success.

1. ATTEND CLASS
2. DO HOMEWORK ASSIGNED-ADDITIONAL IF NEEDED
3. READ TEXT AND PRACTICE EXAMPLES
4. ASK QUESTIONS
5. WORK WITH OTHER STUDENTS
6. USE OTHER AVAILABLE RESOURCES: MY MATH LAB, UTUBE, KHAN ACADEMY, ETC

COURSE OBJECTIVES

After the successful completion of the course the student must be able to

1. Define Absolute Value, Find Distances on the Number Line, on the Coordinate Plane
2. Simplify Expressions with Rational Exponents, Write them in Radical Form, Simplify, Combine, Rationalize Radical Expressions
3. Solve Linear and Quadratic Inequalities, Absolute Value Equations and Inequalities, Express Answers in Interval Form
4. Perform Operations on Complex numbers,Conjugates, Represent Complex Numbers Graphically.
5. Perform Operations on Radical Expressions, Rational Exponents, Solve Radical Equations
6. Find the Domain and Range of Functions, Combine Functions, Identify Odd and Even functions, Graph Piece-wise Defined Functions, Find Compositions of Functions, Inverses, Transformations of Functions.
7. Find the Characteristics of Polynomial Functions, Solve Polynomial equations , Find Zeroes(roots) and X-intercepts of Polynomials, Apply the Fundamental Theorem of Algebra, The Remainder and Factor Theorem, Analyze End Behavior
8. Graph Rational Functions, Find Vertical, Horizontal, Slant Asymptotes
9. Graph Exponential and Logarithmic Function, Use Properties of Exponentials and Logarithms, Solve Exponential and Logarithmic Equations
10. Solve Systems of Linear Equations in Several Variables , Use Matrices, Determinants
11. Find all Characteristics of Conic Sections, Write the Equations of Circles, Parabolas, Ellipses, Hyperbolas in Standard Form, and Graph them
12. Solve Nonlinear System of Equations.
13. Apply the Right Triangle Trigonometry

COURSE PACING GUIDE

2014			ASSIGNMENTS
DAY	TITLE		TBA IN CLASS
	Chapter 1, 1.1 - 1.6		
1	Graphing	1.1	
2	Functions and Graphs	1.2	
	Equations of Lines and Modeling	1.3	
3	Linear Equations, Functions	1.4	

	Solving Linear Inequalities review	1.5	
	Chapter 2, 2.1 - 2.5		
4	Functions 2.1	2.1	
	The Algebra of Functions 2.2	2.2	
5	The Composition of Functions 2.3	2.3	
	Symmetry and Transformations 2.4	2.4	
6	Variation and Applications 2.5	2.5	
	Review		
TEST 1	About February 19		
	Chapter 3 , 3.1 - 3.5		
8	The Complex Numbers	3.1	
	Quadratic Equations, Models	3.2	
9	Graphs of Quadratic equations	3.3	
	Rational and Radical Equations	3.4	
10	Solving Equations and Inequalities with Absolute Values review	3.5	
	Chapter 4, 4.1 - 4.6		
11	Polynomials Functions and Models	4.1	
	Graphing Polynomials Functions	4.2	
12	Polynomial Division, The remainder Theorem	4.3	
	Zeros of Polynomials Functions4.4		

13 TEST2	Rational Functions Polynomial and Rational inequalities review About March 24	4.4 4.5 4.6	
15 16 17 18	**Chapter 5, 5.1 - 5.6** Inverse Functions Exponential Functions and Graphs Logarithmic Functions and Graphs Properties of Logarithmic Functions Solving Exponential and Logarithmic equations Applications and Models review	5.1 5.2 5.3 5.4 5.5 5.6	
19 20 21	**Chapter 6, 6.1 - 6.6, 6.8** Systems of Equations in 2 Variables Systems of Equations in 3 Variables Matrices and Systems of Equations Matrix Equations	6.1 6.2 6.3 6.4 6.5	

22 test3	Inverses of Matrices Determinants and Cramer's Rule Partial Fraction Decomposition **review** About April 23	6.6 6.8	
24 25	**Chapter 7, 7.1 - 7.4** Parabola The Circle and the Ellipse The Hyperbola Nonlinear Systems of Equations and Inequalities **review**	7.1 7.2 7.3 7.4	
FINAL	MAY 19		