# Three Rivers Community College Elementary Algebra -- MAT 095-T5 T/Th 2:30 - 3:45 Spring 2012

**Instructor:** Susan L. Hawes

e-mail: shawes@trcc.commnet.edu

Office: C-122

**Text:** Beginning Algebra, 5<sup>th</sup> edition, by Martin-Gay

MyMathLab Course Code hawes26713

**Credit:** 3 credit hours (this course does not count towards

graduation credit requirements)

**Course Description:** This course extends the basic algebra skills acquired in MAT 075 or equivalent. The topics include: solving and applying linear equations and inequalities, exponents, polynomials, factoring, graphing, systems of equations and scientific notation.

**Prerequisite:** MAT075, appropriate placement score, or equivalent. A grade of "C" or greater is required to pass this course.

### **Course Requirements**

**Attendance:** Attendance is <u>mandatory</u>. If you miss class, <u>due to emergency</u>, it is your responsibility to get the notes & assignments from that class and stay up-to-date. A classmate's phone number is a good "just in case" plan.

**Grading:** There will be three exams, including the final, each worth 25%. There will be several unannounced quizzes, typically given at the beginning of class, so it is to your advantage to be on time. If I distribute the quiz before you arrive to class, your quiz grade will be a zero. **There are no make-up tests/quizzes**. The two lowest quiz scores will be dropped (this allows for two absences or late entry <u>due to emergency</u>). The quiz average will be equivalent to one exam grade and is, therefore, 25% of your course grade. Come to class prepared *every day* for a potential quiz.

**MyMathLab Homework**: Homework is critical to your success in this class and will be collected/recorded. As part of your HOMEWORK assignment, you will be expected to read the associated material from the text.

- A grade of 75 or higher is expected on HW.
- Label HW with section (if I ask to see them or you need them to study, they are easily found)

- Have your class notes for corresponding section open in front of you
- Write the problem from the computer in pen.
- Do the work/steps, according to the notes, in pencil
- If you get a problem wrong, choose "similar exercise" to get a new problem
- When finished, print results page. Turn in result page next class.
- The HW is due the class after lecture on a section. No late assignments accepted without a valid reason.

**Classwork:** If there is time after the lesson, classwork will be assigned. You are expected to write the problem (in pen) and follow all the steps given in class and on notes (in pencil). Quality, not Quantity. IF you don't finish the classwork assignment, you do NOT have to finish it for homework. HOWEVER, I generally take quiz/test questions from the problem section of the textbook, classwork, and notes. It is in your best interest to at least look over what problems you may need more practice, and surely write the assignment down!

# Bring to Every Class:

- Text book
- 3-ring binder w/loose leaf paper
- highlighter
- 2 pencils
- pen

# **Organization of Binder:**

- Class Notes
- Classwork (CW) labeled with section
- Homework (HW) labeled with section
- Quiz after last section it covers
- Test after last chapter it covers

#### **Supplementary Tools & Resources:**

- MyMathLab software
  - Study Plan: Individualized Practice
- Learning Center/TASC
  - o Free tutoring!

#### **MAT095 Course Outcomes**

- 1. Evaluate algebraic expressions
- 2. Determining if a given number is a solution to an equation or an inequality
- 3. Determining if an ordered pair is a solution to a linear equation in 2 variables
- 4. Add, subtract, multiply, and divide real numbers and raise a real number to an integer

- power
- 5. Add, subtract, multiply, and divide Polynomials
- 6. Simplify, add, subtract, multiply, and divide Radicals
- 7. Rules for Exponents
- 8. Greatest Common Factor (factoring)
- 9. Factor by Grouping
- 10. Factor trinomials of the form  $x^2 + bx + c$
- 11. Factor trinomials of the form  $ax^2 + bx + c$
- 12. Factor Perfect Square Trinomials
- 13. Factor the Difference of Two Squares
- 14. Factor Completely
- 15. Converting between Scientific Notation and standard notation
- 16. Order of Operations (manipulation)
- 17. Properties of Real Numbers (manipulation)
- 18. Simplifying Algebraic Expressions (manipulation)
- 19. Graphing in a Rectangular Coordinate System
- Graphing Linear Equations by plotting points, using intercepts, and using the Slope-Intercept form
- 21. Graphing the solution to a Linear Inequality in one variable.
- 22. Graphing a System of Linear Equations in two variables
- 23. Rates of change (slopes)
- 24. Identifying Linear Equations (Linearity)
- 25. Solving Linear Inequalities in one variable
- 26. Finding the Equation of a Line (manipulation)
- 27. Solving Linear Equations in one variable
- 28. Solving formulas for a specified variable
- 29. Solving a System of Linear Equations in two variables (two methods)
- 30. Solving equations with degree 2 or greater by factoring
- 31. Two forms for the equation of a line (transforming back and forth)
- 32. Finding an unknown number word problem
- 33. Solving consecutive numbers (including odd and even) word problems
- 34. Solving dimension problems using geometric formulas
- 35. Solving Percent and Mixture problems
- 36. Solving table problems such as rate, time, and distance
- 37. Solving linear inequality problems
- 38. Solving linear equation in two variables problems
- 39. Solving System of 2 linear equations in 2 variables word problems
- 40. Solving factorable Quadratic Equation word problems

#### Class Cancellation

MyMathLab Announcement Sign on Classroom Door

**Disabilities Statement:** If you have a disability which may require classroom or test-taking modifications, please see Chris Scarborough. Proper documentation must be provided to me before accommodations can be made.