

SPRING 2012 SYLLABUS

MATH 095 Elem. Alg. 3 credit CRN 18507

COURSE:

DAY AND TIME:

10:00-10:50 M-W-F Rm. D203

INSTRUCTOR:

D. PATRICK COLBURN

Email: patrickcolburn@sbcglobal.net

TEXT:

SUPPLEMENTAL

MATERIAL:

Beginning Alg. By Martin-Gay 5th ed.

TI-83 calculator

COURSE

DESCRIPTION:

This course reviews basic mathematical concepts and introduces elementary algebraic concepts and techniques. It is an extension of the basic algebra skills acquired in MAT* K075. The topics include signed numbers, solving first-degree equations, exponents, polynomials, and factoring, graphing, systems of linear equations, inequalities, radicals, and scientific notation. This course does not count towards the minimum requirements for graduation.

MEASUREMENTS:

There will be a test after every chapter. Grade will be determined by finding the arithmetic mean of all assessments. Homework equates to 1/2 Chap. Assessment (each based on a check, check minus, and zero nature).

Any missing hmwk may be passed in before the administration of the relevant assessment

ACADEMIC

HONESTY:

At TRCC, we expect the highest standards of academic honesty. The Board of Trustees' Prescribed Conduct Policy prohibits cheating on examinations, unauthorized collaboration on assignments, or plagiarism. Anyone caught cheating will receive an "F" for that exam.

No Cell phones

MAKE-UP

TESTS:

Any test missed on a scheduled day will be made up during the instructor's discretionary days.

HOMEWORK:

will be collected daily. Place on my desk as you enter the room

EXTRA HELP:

Available by app't; M/W/F 11AM-11:35

MAT 095

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
20. 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