Syllabus

Math 095 Elementary Algebra Foundations

Three Rivers Community College
Norwich, Connecticut 06360

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Course Title: Elementary Algebra Foundations
Course Number: MAT 095
Credits: 3 Semester Hours, Not applicable to degree

Course Description

This course extends the basic algebra skills acquired in MATH 075. The topics include:
exponents, polynomials, factoring, graphing, systems of linear equations, inequalities, radicals
and scientific notation. Prerequisite: a C or better in MATH 075, its equivalent, or acceptable
placement test score.

MAT095 Course Outcomes

1. Add, subtract, multiply, and divide real numbers and raise a real number to an integer
    power
2. Add, subtract, multiply, and divide Polynomials
3. Simplify, add, subtract, multiply, and divide Radicals
4. Rules for Exponents
5. Greatest Common Factor (factoring)
6. Factor by Grouping
7. Factor trinomials of the form $x^2 + bx + c$
8. Factor trinomials of the form $ax^2 + bx + c$
9. Factor Perfect Square Trinomials
10. Factor the Difference of Two Evaluate algebraic expressions
11. Determining if a given number is a solution to an equation or an inequality
12. Determining if an ordered pair is a solution to a linear equation in 2 variables

13. 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

Rationale

A basic understanding of algebra is necessary for many fields of study including business, science, economics, technical fields, and mathematics. Algebraic skills are an essential tool needed to comprehend future mathematics courses such as Statistics, Applied Calculus, Trigonometry, and/or Calculus. Since mathematical problems are not limited to mathematics courses, the skills of Elementary Algebra improve the student's ability to comprehend his/her environment as well as other college courses.

Required Materials

Beginning Algebra 5th ed.- Martin-Gay (On-line)

Grading Policy

A student will receive one of the following grades: A, A-, B+, B, B-. C+, C, C-, D+, D, D-, F, W, I, P, or Audit. Determination of your grade will be based on the following:

1.   Tests. There will be four exams (each worth 100 points) and a comprehensive final exam (worth 400 points). The semester exams are taken on-line. **The final exam is taken here at the college. If you live a far distance from the college, you and I make arrangements to have your exam proctored at a testing center.** If this is the situation you must contact me as soon as possible so that we can arrange a testing site.

2.   Two groups projects (details to come later) which will be graded and are worth 75 points each.

3.   There are two required on-line postings. Details will follow and are worth 25 points each.

4.   Your final grade will be the sum of the four semester exams, the two projects, the two postings plus the final exam, divided by ten. **This means that the final exam is weighted 40% of your final grade.**

Grade Equivalents

A	93 - 100	C+	77 -79
A-	90 - 92	C	73 - 76
		C-	70 - 72
B+	87 - 89		
B	83 - 86	D+	67 - 69
B-	80 - 82	D	63 - 66
		D-	60 –62
		F	59 or lower

Please note that a grade of C or better is required to go on to the next course.

Withdrawal Policy

A verbal "drop or withdrawal" from the course will be accepted through the 14th week of classes in accordance with the designated withdrawal deadlines. Students need to provide the following information: full name, address, date of birth, student identification number and social security number, course reference number (CRN) and descriptor/subject and instructor's name, and if VA/FA benefits. Verbal drops/withdrawals are processed only through the Registrar's Office at (860) 892-5756. **Students who do not withdraw, but stop attending will be assigned an "F".**

Disabilities Statement

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the disabilities Counseling Services at (860) 383.5217. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that I cannot provide accommodations based upon disability until I have received an accommodation letter from the disabilities counselor.