Elementary Algebra Foundations MAT K095, CRN 11260, Spring 2017, TR 3:30-4:45 PM, Room D212

Instructor – James Nuttall

Pre-requisite: **Multiple measures**

Text: **Elementary and Intermediate Algebra – 5th Edition -- Baratto - Bergman**
Course description: 3 CREDIT HOURS Elementary Algebra Foundations
This developmental course prepares students for college level courses. The course develops understanding of number systems, different representations of numbers, operations on numbers, including numbers expressed in scientific notation. The course introduces functions, their graphs, modeling relationships between quantities using functions. Topics also include solving equations and expressions with integer exponents, radicals, solving, analyzing and modeling linear equations, systems of linear equations, Pythagorean Theorem and geometrical formulas are used to solve real world problems.

Measurements: Three Quizzes (15%), Three Chapter Tests (60%) and a Final Exam (25%) – 100%.
                        Grade equivalents: A 93 – 100, A- 90 – 93, B+ 87 -89, B 83 – 86,
                        B- 80 – 82, C+ 77 – 79, C 73 – 76, C- 70 – 72, D+ 67 – 69. D 63 – 66,
                        D- 60 – 62, F below 60, N if the student completed less than 60% of work

Attendance: It is very important that you attend **ALL** classes. Your attendance in the
                        classroom, participation in classroom work /projects and preparation for
                        each class is required and is essential to your success in the course.

Support Services: Tutorial services. Meeting with me for an extra help.

Office Hours: Immediately before class or by arrangement.
                        E-mail: jnuttall@threerivers.edu

Class Cancellation: In case of inclement weather, check the college website for class
                        cancellations or call 860-215-9000 for recorded message on the college phone.

Plagiarism and Academic Honesty:
                        At TRCC, we expect the highest standards of academic honesty. The Board of
                        Trustees' Proscribed Conduct Policy prohibits cheating on examinations,
                        unauthorized collaboration on assignments, unauthorized access to examinations
                        or course materials, plagiarism.

Alert System: MyCommNet Alert is a system that sends text messages and emails to anyone signed up
                        in the event of a campus emergency. Additionally, TRCC sends messages when the
                        college is delayed or closed due to weather. All students are encouraged to sign up for
                        MyCommNet Alert. A tutorial is available on the Educational Technology and Distance
                        Learning Students page of the web site(see the link below).
http://www.trcc.commnet.edu/div_it/educationaltechnology/Tutorials/myCommNetAlert/MIR3.html

Disabilities :   If you have a disability that may affect your progress in this course, please meet with a Disability Service Provider (DSP) as soon as possible. Please note that accommodations cannot be provided until you provide written authorization from a DSP.

College Disabilities Service Provider	
Matt Liscum, Counselor (860) 215-9265 Room A113	• Learning Disabilities • ADD/ADHD • Autism Spectrum • Mental Health Disabilities
Elizabeth Willcox, Advisor (860) 215-9289 Room A113	• Medical Disabilities • Mobility Disabilities • Sensory Disability

Course Outline, Schedule, Homework (This is a guide only. Assignments and schedules may vary).

Section	Topics		HW
Ch.0	**Review of Prealgebra 1/19 – 1/24**		
0.1	Review of fractions	p. 10	1 - 91
0.2	Real Numbers	p. 19	1 - 69
0.3	Adding and subtracting real numbers	p. 28	1 - 73
0.4	Multiplying and dividing real numbers	p. 39	1 - 77
0.5	Exponents and Order of Operations, **Quiz 1/24**	p. 48	1 - 75
Ch. 1	**From Arithmetic to Algebra 1/26 – 2/14**		
1.1	Algebraic Expressions	p. 63	1, 5, 7, 19, 21, 25, 27
1.2	Evaluating algebraic expressions	p. 75	1-21
1.3	Simplifying Algebraic Expressions	p. 87	27-67, 81-89
1.4	Solving equations using addition property	p. 102	41-61, 71 -77
1.5	Solving equations using multiplication property	p. 113	13-39, 59-63
1.6	Combining the rules to solve equations	p. 126	11-59, 73,75,85,87
1.7	Linear inequalities **Test 2/14**	p. 141	25-33, 38-55
Ch. 2	**Functions and Graphs 2/16 – 2/23**		
2.1	Formulas and problem solving	p. 161	1-21, 31-35
2.2	Sets and set notation	p. 175	15-27, 35-43,
2.3	Two-variable equations	p. 186	1, 7, 15, 17
2.4	The Cartesian coordinate system	p. 198	1-21, 35, 39, 51
2.5	Relations and Functions	p. 212	17-21, 33, 3741-47
2.6	Tables and graphs **Quiz 2/23**	p. 226	7-21, 45-49
Ch. 3	**Graphing Linear Functions 2/28 – 3/9**		
3.1	Graphing linear Functions	p. 256	1, 3, 7, 11, 21, 23
3.2	The Slope of a line	p. 279	7-15, 19-41, 47-51, 55, 59,
3.3	Linear equations **Test 3/9**	p. 294	1, 3, 5, 11-21, 23-31, 33-43
Ch. 4	**Systems of Linear Equations 3/21 – 3/28**		
4.1	Systems of Linear equations	p. 347	5 - 23, 25-31, 33-38
4.2	Solving systems in one variable graphically	p. 358	1-9
4.3	Solving systems in 2 Variables **Quiz 3/28**	p. 373	1-25, 33, 35, 51-55
Ch. 5	**Exponents and Polynomials 3/20 – 4/20**		
5.1	Positive Integer Exponents	p. 414	1-51
5.2	Integer Exponents and Scientific notation	p. 427	1-35, 83, 89, 91, 97, 105, 107
5.3	An introduction to Polynomials	p. 436	1 -15, 37
5.4	Adding and subtracting Polynomials	p. 444	11, 17, 23, 31, 37
5.5	Multiplying Polynomials	p. 455	1-19, 25-37, 49-53, 61-67
5.6	Dividing Polynomials **Test 4/20**	p. 465	1-19
Ch.7	**Radicals and Exponents 4/25 – 4/27**		
7.1	Roots, radicals, Pythagorean Theorem	p. 560	1-9, 59-63
	Final Exam 5/9		

Course Objectives and Outcomes.

At the completion of MAT095, the student will be able to do the following —

Algebra
1. Use symbols and the language of algebra
2. Identify algebraic expressions
3. Use algebra to model an application
4. Evaluate an algebraic expression
5. Use linear equations to solve problems

Functions and Graphs
1. Solve applications involving geometric figures
2. Solve motion problems
3. Use two variable equations in applications
4. Plot orders pairs
5. Determine whether a relation is a function
6. Evaluate a function
7. Determine function values from a graph

Linear Functions
1. Graph a linear equation
2. Use the intercept method to graph a linear equation
3. Write the equation of a line using the slope and the y-intercept
4. Write the equation of a line through two points
5. Construct a linear function to model an application
6. Graph a linear inequality in two variables

System of Linear Equations
1. Solve systems of equations by graphing
2. Find and interpret the intersection of two lines
3. Use the addition method to solve a system of equations
4. Use the substitute method to solve a system of equations
5. Graph and solve a system of linear inequalities

Exponents and Polynomials
1. Use exponential notation
2. Simplify exponential expressions
3. Classify, determine the degree and determine the number of terms in a polynomial
4. Add and subtract polynomials
5. Determine the product of two binomials

Radicals and Exponents
1. Evaluate expressions containing radicals
2. Apply the Pythagorean theorem
3. Use the distance formula
4. Use the product and quotient property to simplify radical expressions

BOARD OF REGENTS FOR HIGHTER EDUCATION AND CONNECTICUT STATE COLLEGES AND UNIVERSITIES POLICY REGARDING SEXUAL MISCONDUCT REPORTING, SUPPORT SERVICES AND PROCESSES POLICY

Statement of Policy for Public Act No. 14-11: An Act Concerning Sexual Assault, Stalking and Intimate Partner Violence on Campus:

"The Board of Regents for Higher Education (BOR) in conjunction with the Connecticut State Colleges and Universities (CSCU) is committed to insuring that each member of every BOR governed college and university community has the opportunity to participate fully in the process of education free from acts of sexual misconduct, intimate partner violence and stalking. It is the intent of the BOR and each of its colleges or universities to provide safety, privacy and support to victims of sexual misconduct and intimate partner violence."

UNITED STATES DEPARTMENT OF EDUCATION AND OFFICE OF CIVIL RIGHTS TITLE IX STATEMENT OF POLICY:

"Title IX of the Education Amendments of 1972 (Title IX) prohibits discrimination based on sex in education programs and activities in federally funded schools at all levels. If any part of a school district or college receives any Federal funds for any purpose, all of the operations of the district or college are covered by Title IX.

Title IX protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination, including discrimination based on gender identity or failure to conform to stereotypical notions of masculinity or femininity. All students (as well as other persons) at recipient institutions are protected by Title IX – regardless of their sex, sexual orientation, gender identity, part-or full-time status, disability, race, or national origin-in all aspects of a recipient's educational programs and activities."

If any student experiences sexual misconduct or harassment, and/or racial or ethnic discrimination on Three Rivers Community College Campus, or fears for their safety from a threat while on campus, please contact Edward A. Derr, the Diversity Officer and Title IX Coordinator:

Edward A. Derr

Title IX Coordinator and Diversity Officer

Admissions Welcome Center * Office A116

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