Fall 2017 Elementary Algebra Foundation, K095, 30137, M, W 11:00am – 12:15pm, room E221.

Professor James Chadic

Prerequisite: None

Text: Elementary and Intermediate Algebra, by Stefan Baratto, Barry Bergman, Don Hutchison, 5th edition
Publisher: McGraw-Hill Education

Course Description: We will start with a review of pre-algebra, then a transition to arithmetic to algebra. From there, we will learn about linear functions, graphs, systems of equations, exponents, radical and polynomials. We will also learn about problem solving.

Evaluations: Quizzes, Homework – 15%, 4 Exams, each Exams – 15%, and final exam – 25%.

Measurements: Minimum averages for each letter grades:

A	93%	B+	87%	C+	77%	D+	67%
A-	90%	B	83%	C	73%	D	63%
B-	80%	C-	70%	D-	60%.		

Support Services: T.A.S.C, peers, or me during my office hours or by appointment.

Office Hours: M W 9:30 – 10:30 am, T, R 12:30 – 1:30 pm, F 11:00 am- 12:15 pm **Room C132**

Email: jchadic@trcc.commnet.edu Office number: (860) 215 -9425

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

Plagiarism and Academic Honesty: At TRCC, we expect the highest standards of academic honesty. All students are expect to demonstrate integrity in the completion of their coursework. Academic integrity means doing one's own work and giving proper credit to the work and ideas of others. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism. Students who engage in plagiarism and other forms of academic misconduct will face academic and possibly disciplinary consequences. Academic sanctions can range from a reduced grade for the assignment to a failing grade for the course. From a disciplinary standpoint, an Academic Misconduct Report may be fill and a Faculty Hearing Board may impose sanctions such as probation, suspension or expulsion.

MyCommNet Alert: MyCommNet 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 has a delay, or close 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.
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 he can be reach at (860) 215-9265, and his office is at Room A113. He will be able to provide service for people that has learning disabilities, ADD/ADHD, Autism Spectrum, and Mental Health Disabilities.
- Elizabeth Wilcox, Advisor, she can be reach at (860) 215-9289, and her office is at Room A113 as well. She will be able to help people with medical, mobility, and sensory disabilities.

Digication Statement: All students are required to maintain an online learning portfolio in Digication that uses the college template. Through this electronic tool, students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her earning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

Board of Regents for Higher Education and Connecticut State Colleges and Universities Policy Regarding Sexual Misconduct Reporting, Support Services and Processes Policy:

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."

Title IX Statement of Policy:

"Title IX of the Education Amendments Act of 1972 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 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 educational programs and activities."

Please Report Student Incidents to: Edward A. Derr, Student Diversity and Title IX Coordinator
Admissions Welcome Center * Office A116
574 New London Turnpike, Norwich CT 06360
860.215.9255 * EDerr@trcc.commnet.edu

Course Objectives:
Upon completion of the course, student should be able to:
1. Simplify, multiply, divide, add and subtracting fractions, real numbers.
2. Write a product of like factors in exponential form, evaluate exponential expressions, and use the order of operations to evaluate expressions.

3. Use the symbols and language of algebra, identify algebraic expressions, uses algebra to model application. And use expressions to solve applications.
4. Use the vocabulary associated with algebraic expressions, combine like terms, add and subtract algebraic expressions.
5. Use the multiplication property to solve equations and applications.
6. Use inequality notation, graph the solution set of a linear inequality, and solve a linear inequality.
7. Solve a formula for any variable, applications involving geometric figures, and motions problems.
8. List the elements of a set in roster form, use set-builder notation to describe a set, use interval notation to describe a set, and find the union and intersection of sets.
9. Determine the coordinates of a plotted point, plot ordered pairs, scale the axes of a graph.
10. Identify the domain and range of a relation, determine whether a relation is a function, evaluate a function, and use function notation to write an equation.
11. Use the vertical line test, identify the domain and range of a relation from its graph, read function values from a table, and read function values from a graph.
12. Find the slope of a line, find the slope and y-intercept of a line from an equation, write the equation of a line given its slope and y-intercept, and graph a linear equation.
13. Determine whether lines are parallel or perpendicular, write an equation for a line from its slope and a point or two points, and an equation of a line based on geometric conditions.
14. Graph a linear inequality in two variables, and a region defined by linear inequalities.
15. Solving system of equations by graphing, and classify systems of equations.
16. Rewrite a linear equation in one variable, find and interpret the point of intersection of functions.
17. Use addition, substitution, and graphing method to solve system of equations.
18. Use exponential notation, and simplify exponential expressions.
19. Use zero as an exponent, simplify expressions with negative exponents, use scientific notation to write numbers, and solve applications involving scientific notation.
20. Classify polynomials, find the degree of a polynomial, write polynomials in descending order, add and subtract polynomials.
21. Find the product of a monomial and a polynomial, the product of two binomials, square a binomial, and find the product of two binomials that differ only in sign.
22. Divide a polynomial by a monomial, and find the quotient of two polynomials.
23. Evaluate expressions containing radicals, estimate radical expressions, and simplify expressions containing radicals.
24. Apply the Pythagorean Theorem, use the distance formula, and write the equation of a circle and sketch its graph.

Course Content:
Chapter 0.   **Pre-Algebra Review**
          Sec. 0.1 a review of fractions
          Sec. 0.2 Real numbers
          Sec. 0.3 Adding and Subtracting
          Sec. 0.4 Multiplying and Dividing
          Sec. 0.5 Exponents and order of Operations
Chapter 1.   **Arithmetic to Algebra**
          Sec. 1.1 Transition to algebra
          Sec. 1.2 Evaluating Algebraic Expressions
          Sec. 1.3 Simplifying Algebraic Expressions
          Sec. 1.4 Solving Equations with the Addition Property
          Sec. 1.5 Solving Equations with the Multiplication Property
          Sec. 1.6 Combining the Rules to Solve Equations

Sec. 1.7 Linear Inequalities

Chapter 2.   Functions and Graphs
Sec. 2.1 Formula and Problem Solving
Sec. 2.2 Sets and set notations
Sec. 2.3 Two Variable Equations
Sec. 2.4 the Cartesian Coordinates System
Sec. 2.5 Relations and Functions
Sec. 2.6 Tables and Graphs

Chapter 3.   Graphing Linear Functions
Sec. 3.1 Graphing Linear Functions
Sec. 3.2 the Slope of a line
Sec. 3.3 Linear Equations

Chapter 4.   System of Linear Equations
Sec. 4.1 Graphing System of Linear Equations
Sec. 4.2 Solving Equations in one variable graphically
Sec. 4.3 Systems of Equations in two variables

Chapter 5.   Exponents and Polynomials
Sec. 5.1 Positive integer Exponents
Sec. 5.2 Integer Exponents and Scientific Notation
Sec. 5.3 An introduction to Polynomials
Sec. 5.4 Adding and Subtracting Polynomials
Sec. 5.5 Multiplying Polynomials
Sec. 5.6 Dividing Polynomials

Chapter 7.   Radical and Exponents
Sec. 7.1 Roots and Radicals

Tentative HW assignments (Odd problems only):
Course Outline, Schedule, Homework (This is a guide only. Assignments and schedules may vary).

Section	Topics		Exercises
Ch.0	**Review of Pre-algebra**		
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	p. 48	1 - 75
Ch. 1			
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

Assignments DUE DATES: Assignments such as quizzes, projects, homework, will be announce a week in advance. It is **your responsibility** to complete these assignments on time. **I will not accept LATE ASSIGNMENT, <u>WITHOUT A PROPER REASON.</u>**