### Elementary Algebra, FALL 2017, CRN 32503 MAT K0951, MON,WED 1:30pm - 2:45pm, FRI 2:00-4:45 **Rm D219 Instructor – John Donato** Pre-requisite: MAT K075 or MAT K075I

# Text: Elementary and Intermediate Algebra – 5th Edition -- Baratto - Bergman **Course description: 6 CREDIT HOURS ELEMENTARY ALGEBRA**

This course is Elementary Algebra taught as a lecture course and with Aleks as a lab. The course develops procedures for creating equations that abstractly represents the relations of relevant data in real world problems and how to solve equations. It exposes students to the geometric relation of equations to a physical model (Cartesian plane) and introduces polynomial equations. The lab section exposes students to additional practice and individualized instruction using the Aleks software. It is **expected** that a minimum of 2.5 hours per week are spent in the Aleks program unless you complete 90% of the required topics.

Measurements:	Grade will be determined by taking average of homework, tests, quizes and the Aleks grade taken twice. The Final will count as two tests. 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 <b>ALL</b> 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 after class or by arrangement. E-mail: <u>idonato@trcc.commnet.edu</u> or <u>idonatori2@yahoo.com</u> Phone: (401) 330-0170 cell				
Class Cancellation	<ul> <li>In case of increment weather, check the college website for class cancellations or call 860-215- 9000 for recorded message on the college phone.</li> </ul>				
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.

TRCC Disabilities Service Providers Counseling & Advising Office Room A-119				
Matt Liscum (860) 215-9265	<ul> <li>Physical Disabilities</li> <li>Sensory Disabilities</li> <li>Medical Disabilities</li> <li>Mental Health Disabilities</li> </ul>			
Chris Scarborough (860) 215-9289	<ul> <li>Learning Disabilities</li> <li>ADD/ADHD</li> <li>Autism Spectrum</li> </ul>			

**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 learning 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

# 095 Course Topics Elementary and Intermediate Algebra by Baratto, Bergman 5th ed

Section	Topics	HW (odd numbered problems; it's a guide only
Ch.0	Review of Prealgebra (primarily for 095 I classes)	
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

<b>Ch. 1</b> 1.1 1.2 1.3 1.4 1.5 1.6 1.7	Algebraic Expressions Evaluating algebraic expressions Simplifying Algebraic Expressions Solving equations using addition property Solving equations using multiplication property Combining the rules to solve equations Linear inequalities	p. 63 p. 75 p. 87 p. 102 p. 113 p. 126 p. 141	1, 5, 7, 19, 21, 25, 27 1-21 27-67, 81-89 41-61, 71 -77 13-39, 59-63 11-59, 73,75,85,87 25-33,38-55
<b>Ch. 2</b> 2.1 2.2 2.3 2.4 2.5 2.6	Formulas and problem solving Sets and set notation Two-variable equations The Cartesian coordinate system Relations and Functions Tables and graphs	p. 161 p. 175 p.186 p. 198 p. 212 p. 226	1-21, 31-35 15-27,35-43, 1,7,15,17 1-21,35,39, 51 17-21, 33, 3741-47 7-21, 45-49
<b>Ch. 3</b> 3.1 3.2 3.3	Graphing linear Functions The Slope of a line Linear equations	p. 256 p.279 p. 294	1,3,7, 11, 21, 23 7-15, 19-41, 47-51, 55, 59, 1,3,5,11-21, 23-31, 33-43
<b>Ch. 4</b> 4.1 4.2 4.3	Systems of Linear equations Solving systems in one variable graphically Solving systems in 2 Variables	p. 347 p. 358 p. 373	5 - 23, 25-31, 33-38 1-9 1-25, 33,35, 51-55
<b>Ch. 5</b> 5.1 5.2 5.3 5.4 5.5 5.6	Positive Integer Exponents Integer Exponents and Scientific notation An introduction to Polynomials Adding and subtracting Polynomials Multiplying Polynomials Dividing Polynomials	p. 414 p. 427 p. 436 p. 444 p. 455 p. 465	1-51 1-35, 83, 89, 91,97, 105, 107 1 -15, 37 11, 17, 23, 31, 37 1-19, 25-37, 49-53, 61-67 1-19
<b>Ch.7</b> 7.1	Roots, radicals, Pythagorean Theorem	p. 560	1-9, 59-63

# 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

### **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. Converting between Scientific Notation and standard notation
- 9. Order of Operations (manipulation)
- 10. Properties of Real Numbers (manipulation)
- 11. Simplifying Algebraic Expressions (manipulation)
- 12. Graphing in a Rectangular Coordinate System
- 13. Graphing Linear Equations by plotting points, using intercepts, and using the Slope-Intercept form
- **14.** Graphing the solution to a Linear Inequality in one variable.
- 15. Graphing a System of Linear Equations in two variables
- 16. Rates of change (slopes)
- 17. Identifying Linear Equations (Linearity)
- 18. Solving Linear Inequalities in one variable
- 19. Finding the Equation of a Line (manipulation)
- 20. Solving Linear Equations in one variable
- 21. Solving formulas for a specified variable
- 22. Solving a System of Linear Equations in two variables (two methods)
- 23. Solving equations with degree 2 or greater by factoring
- 24. Two forms for the equation of a line (transforming back and forth)
- 25. Finding an unknown number word problem
- 26. Solving consecutive numbers (including odd and even) word problems
- 27. Solving dimension problems using geometric formulas
- 28. Solving Percent and Mixture problems
- 29. Solving table problems such as rate, time, and distance
- 30. Solving linear inequality problems
- 31. Solving linear equation in two variables problems
- 32. Solving System of 2 linear equations in 2 variables word problems
- 33. Identifying Polynomial degee
- 34. Adding and subtracting polynomials
- 35. Multiplying and dividing polynomials

#### **Mathematical Practices**

- 1) Make sense of problems and persevere in solving them.
- 2) Reason abstractly and quantitatively.
- 3) Construct viable arguments and critique the reasoning of others.
- 4) Model with mathematics.
- 5) Use appropriate tools strategically.
- 6) Attend to precision.
- 7) Look for and make use of structure.
- 8) Look for and express regularity in repeated reasoning