Intermediate Algebra, Spring 2018, CRN 12859 MAT K137S , MON 1:30pm – 2:45pm in RM D222, WED 1:30-3:50 in RM B116
Instructor – John Donato
Pre-requisite: **MAT K095 or MAT K095I with a "C-#" or higher OR EQUIVALENT**

Text: Elementary and Intermediate Algebra – 5th Edition -- Baratto - Bergman
Course description: 4 CREDIT HOURS INTERMEDIATE ALGEBRA

    This course represents the Intermediate Algebra instruction with embedded developmental support. The course cultivates understanding and different representations of functions. The course covers linear, quadratic, exponential, rational, radical functions, equations and expressions and operations on them with emphasis on modeling and solving real world problems. The lab section exposes students to additional practice and individualized instruction using the Aleks software. Our expectation is that you are spending 2-3 hours of reading and doing homework for this class for every "academic" hour we meet in class. We meet 4 "academic" hours per week, therefore you should expect to spend *at least* **8-12 hours per week** on this class, outside of class meetings, every week!

Measurements: Grade will be determined by taking average of homework, notebook, tests, quizzes and the Aleks grade. 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 **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. Excessive and unexcused absences can result in a lower grade by 1 grade (ex. C+ to C) for every multiple of 3 absences.

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

Office Hours: Immediately before/after class or by arrangement.
    E-mail: jdonato@trcc.commnet.edu or jdonatori2@yahoo.com
    Phone: (401) 330-0170 cell

Class Cancellation: In case of increment 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

PACING GUIDE(subject to change)
k137S Course Topics   Elementary and Intermediate Algebra by Baratto, Bergman 5th ed

Section	Topics		HW (odd numbered problems; it's a guide only)

numbered problems; it's a guide only)

General review of solving equations and multiplying polynomials

Ch. 2   Functions and Graphs

Section	Topics	Page	HW
2.5	Relations and Functions	p. 211	1,5,17,19,21,31,33,35,41,43,4557,69
2.6	Tables and Graphs	p. 225	1,3,7,9,11,13,15,31,33,45,49

Ch. 6   Factoring

Section	Topics	Page	HW
6.1	Introduction to Factoring	p. 486	1-90
6.2	Factoring Special Products	p. 497	1-70
6.3	Factoring: Trial and Error	p. 507	1-70
6.4	Factoring: ac method	p. 518	1-111
6.5	Factoring Strategies	p. 524	1-87
6.6	Factoring and Problem Solving	p. 537	1-55,61,6371,72,85

TEST 1 ON OR BEFORE WEEK OF FEBRUARY 19

Ch. 7   Radicals and Exponents

Section	Topics	Page	HW
7.1	Roots and Radicals	p. 560	1-127
7.2	Simplifying Radical Expressions	p. 573	1-85,89
7.3	Operations on Radicals	p. 584	1-85
7.4	Solving Radical Expressions	p. 593	1-69
7.5	Rational Exponents	p. 603	1-127
7.6	Complex Numbers	p. 611	1-61

TEST 2 ON OR BEFORE WEEK OF MARCH 26

Ch. 8   Quadratic Functions

Section	Topics	Page	HW
8.1	Solving Quadratic Equations	p. 634	1-55,59,61,63,67
8.2	The Quadratic Formula	p. 652	1-61,63,65,67,77,79
8.3	An Introduction to Parabolas	p. 665	1,3,921,25,35,37,45
8.4	Quadratic Equations/ Problem Solving	p. 678	1,3,7,13,23,31,35,37

TEST 3 ON OR BEFORE WEEK APRIL 16

Ch. 9   Rational Expressions

Section	Topics	Page	HW
9.1	Simplifying Rational Expressions	p. 698	1-77
9.2	Multiplying/ Dividing Rational Expressions	p. 710	1-39,43
9.3	Adding/ Subtracting Rational Expressions	p. 721	1-37
9.6	Rational expressions/ Problem Solving		

TEST 4 ON OR BEFORE WEEK OF APRIL 30

Ch. 10   Exponential and Logarithmic Functions

Section	Topics	Page	HW
10.4	Exponential Functions	p. 819	1-21
10.7	Logarithmic and Exponential Equations	p. 859	1-39

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."

- Title IX clause:

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 Vicki Baker, the Diversity Officer and Title IX Coordinator: 860-215-9208 (vbaker@trcc.commnet.edu)

- Accommodation clause:

ACCOMMODATIONS: Students with learning disabilities should contact the Learning Specialist, Matt Liscum, at 860-215-9265 or via email at mliscum@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Elizabeth Willcox at 860-215-9289 or via email at ewillcox@trcc.commnet.edu to facilitate accommodations. All testing accommodations MUST be discussed with the instructor in a timely manner, that is, *at least* one to two class meetings **prior** to any scheduled test for which accommodations are needed.

- Academic Dishonesty policy (for example):

Academic integrity is essential in all aspects of college coursework and learning. I have zero tolerance for academic dishonesty. It is expected that **YOU** complete all your assigned ALEKS work. Communication or collaboration of ANY sort is ABSOLUTEY PROHIBITED during any exam. Academic Misconduct is punishable in a number of ways, including a score of a zero on the assignment where the cheating took place, a grade of an F in the course and/or possible censure on your permanent record. All cases of academic dishonesty will be referred to the Academic Dean. Do not let yourself come under the suspicion of academic dishonesty.)

- Digication statement – please include one of the following statements:

Basic: All students are required to maintain an online learning portfolio in Digication that uses the college template.

Traditional Version: 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.

Student Centered Version: As a student you will maintain an online learning portfolio using a college-designed template in Digication. Through this electronic tool you will have the opportunity to monitor your own growth in college-wide learning. It may even help you determine a major that is best suited to you. You will be able to keep and maintain your learning portfolio after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. If your work is selected and reviewed for assessment purposes, it will remain anonymous and private. Digication provides a "place" where you will connect your learning from the classroom, college, and life in general. Sometimes when you review all of the work you have done and think about it, you end up learning something different and perhaps unexpected. Please review your course outlines to determine what assignments to upload into the TRCC Digication template and please post your own choices, as well. Have fun in learning!

COURSE OUTCOMES:
At the completion of MAT 137, the student will be able to do the following:
FACTORING
1) Factor monomials
2) Factor polynomials by grouping
3) Factor perfect square trinomials, difference of squares, sum/difference of cubes
4) Factor quadratics

Quadratic Functions and/or Expressions
1) Provide multiple representations of quadratic functions or expressions by hand and using technology
2) Determine identifying characteristics of quadratic functions or expressions (e.g., factors)
3) Evaluate, simplify, and perform operations on quadratic functions or expressions
4) Solve quadratic equations algebraically (e.g., factoring, completing the square, and quadratic formula) and graphically
5) Solve real world applications involving quadratic equations and functions

Radical Functions and/or Expressions
1) Provide multiple representations of simple radical functions or expressions by hand and using technology, with primary emphasis on square root
2) Determine identifying characteristics of radical functions or expressions
3) Evaluate, simplify, and perform operations on simple radical functions or expressions
4) Solve simple radical equations algebraically and graphically
5) Solve real world applications involving radical functions
6) Identify imaginary numbers

Rational Functions and/or Expressions
1) Provide multiple representations of simple rational functions or expressions by hand and using technology
2) Determine identifying characteristics of rational functions or expressions
3) Evaluate, simplify, and perform operations on simple rational functions or expressions
4) Solve simple rational equations algebraically and graphically
5) Solve real world applications involving rational functions

Exponential Functions and/or Expressions

1) Provide multiple representations (e.g., tables, graphs, symbols) of exponential functions or expressions by hand and using technology
2) Determine identifying characteristics of exponential functions or expressions
3) Evaluate, simplify, and perform operations on exponential functions or expressions
4) Identify real world applications involving exponential functions

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.