College Algebra, MAT* K137, CRN 30178

James Chadic

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Office: C102
E-mail: *JChadic@trcc.commnet.edu* Phone: (860) 215 -9425
Office Hours: Tuesday/Thursady 10:00-12:00pm and Monday/Wednesday 9:30am-10:30am, or by appointment.

Class Hours: Monday/Wednesday 4:30pm-5:45pm Class Room: D216

Prerequisite

*MATK*095 or *MATK*095*I* with a $B-$ grade or better or appropriate placement through multiple-measures assessment process.

Required Material

In order to succeed in this class, the following items are **NECESSARY;**

1. Elementary and Intermediate Algebra, by Stefan Baratto, Barry Bergman, Don Hutchison, 5th edition. Publisher: McGraw-Hill Education.
2. Please note, a graphing calculator is **REQUIRED.** Instructor will use a Texas Instrument calculator (TI-84 or TI-89). The use of Cell phones, tablets, or any sorts of electronic devices are **STRONGLY PROHIBITED** during class times.
3. A notebook and something to write with is **REQUIRED.**

Course Description

This course cultivates understanding and different representations of functions. Topics covered include linear, quadratic, exponential, rational, radical functions, equations, and expressions with emphasis on modeling and solving real world problems. A graphing calculator is required. Instructor will use a Texas Instrument calculator (TI-84). Please refer to online schedule and click on the CRN hyperlink and/or review the printed schedule to determine which faculty require math software in their section.

Evaluations

Quizzes/Homework 15% Attendence 10%, 4 Exams 50%, and Final exam 25%.

Support Services

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

Grading Policy

This is how the grade will be scale in the class. There will be **NO CURVE**. However, I will **not stop and deny you** if you want to improve your grade, meaning you are allow to do retakes as many times as you want, (just be aware that it will be harder compare to your previous one). Below is the measurements for the minimum/maximum for each letter grade.

- From $93 \to 100 \implies A$ $92 \to 90 \implies A-$
- From $89 \to 87 \implies B+$ $86 \to 83 \implies B$ $82 \to 80 \implies B-$
- From $79 \to 77 \implies C+$ $76 \to 73 \implies C$ $72 \to 70 \implies C-$
- From $69 \to 67 \implies D+$ $66 \to 63 \implies D$ $62 \to 60 \implies D-$
- From $59 \to 0 \implies F$

Class Cancellation

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

During Class

I **WILL NOT TOLERATE** the use of electronics in this class, **EXCEPT** if this is an accomadation. Please refrain from using computers for anything but activities related to the class. Phones are prohibited as they are rarely useful for anything in the course. Eating and drinking are allowed in class but please refrain from it affecting the course. Try not to eat your lunch in class as the classes are typically active.

Attendance Policy

It is **VERY IMPORTANT** you attend class because if you do not you will see the outcome of it at the end of the semester and also it might impact your **FINANCIAL AID**, so please be mindful of that. Attendance is expected in all lecture. Valid excuses for absence will be accepted before class. In extenuating circumstances, valid excuses with proof will be accepted after class. For every class missed your knowledge about the subject will be decreasing, and in term of moving forward it will be difficult in your part. It is **YOUR RESPONSIBILITY** to find what you miss **NOT MINE**. Your life, your choice, and your education.

Academic Integrity and 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.

Accommodations for 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.

Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and TRCC policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and TRCC policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. CT State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at **STUDENT HANDBOOK** Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office.

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 opportu-

nities. If desired, students will have the option to create multiple portfolios.

Few things you need to be aware of

1. If I caught you on your cell phone during lecture or assessment time, the instructor will immediately will expel you from the class for that day. As a result you will not get any credit for the day and worse you will fail the assessment automatically.
2. If you are being disruptive lots of time wether during class period or during assessment time, **I will be ask you to leave the classroom.** Again you will get no credit for the day, or worse you faill the assessment automatically.
3. The quiz will be at the beginning of the class and it will be for 20 to 25 minutes **ONLY.** Be advise, if you come late during the quiz time you will have no additional time. There will be no make up for that.
4. If you miss an assignment wether it is a quiz, exam, or anything in particuarly that was graded. Without a proper excuse, **I will not** let you make it up.

Words of Wisdom

"**My philosophy about teaching is simple, I am here to help you develop your own idea not through show you how to solve a problem step by step, rather by your own way of thinking."**

Let's face the truth, Math is simply learning by doing it yourself.

Course Objectives

Upon completion of the course, student should be able to:

1. Provide multiple representations (e.g., words, symbols, graphs, tables) of linear functions by hand and/or using technology.
2. Determine identifying characteristics of linear functions.
3. Model and solve real world applications with linear functions (e.g., car depreciation) and systems of linear equations.
4. Provide multiple representations of quadratic functions or expressions by hand and/or using technology.
5. Determine identifying characteristics of quadratic functions or expressions (e.g., factors).
6. Evaluate, simplify, and perform operations on quadratic functions or expressions.
7. Solve quadratic equations algebraically (e.g., factoring, completing the square, and quadratic formula with rational solutions) and/or graphically.
8. Solve real world applications involving quadratic equations and functions.
9. Provide multiple representations (e.g., tables, graphs, symbols) of exponential functions or expressions by hand and/or using technology.

10. Determine identifying characteristics of exponential functions or expressions.
11. Evaluate, simplify, and perform operations on exponential functions or expressions.
12. Identify real world applications involving exponential functions and/or solve graphically.
13. Provide multiple representations of simple rational functions or expressions by hand and/or using technology.
14. Determine identifying characteristics of rational functions or expressions.
15. Evaluate, simplify, and perform operations on simple rational functions or expressions.
16. Solve simple rational equations algebraically and/or graphically.
17. Solve real world applications involving rational functions.
18. Provide multiple representations of simple radical functions or expressions by hand and/or using technology, with primary emphasis on square root.
19. Determine identifying characteristics of radical functions or expressions.
20. Evaluate, simplify, and perform operations on simple radical functions or expressions.
21. Solve simple radical equations algebraically and/or graphically.

22. Solve real world applications involving radical functions.
23. Identify imaginary numbers.

Course Content

Chapter 6

1. Sec. 6.1 An introduction to factoring
2. Sec. 6.2 Factoring special products
3. Sec. 6.3 Factoring: trial and error
4. Sec. 6.4 Factoring: The AC-method
5. Sec. 6.5 Factoring strategies
6. Sec. 6.6 Factoring and problem solving

Chapter 7

1. Sec. 7.1 Roots and radicals
2. Sec. 7.2 Simplifying radical expressions
3. Sec. 7.3 Operations on radicals
4. Sec. 7.4 Solving radical equations
5. Sec. 7.5 Rational exponents
6. Sec. 7.6 Complex numbers

Chapter 8

1. Sec. 8.1 Solving quadratic equations
2. Sec. 8.2 The quadratic formula
3. Sec. 8.3 An introduction to parabolas
4. Sec. 8.4 Quadratic equations and problem solving

Chapter 9

1. Sec. 9.1 Simplifying rational expressions
2. Sec. 9.2 Multiplying and dividing rational expressions
3. Sec. 9.3 Adding and subtracting rational expressions

4. Sec. 9.6 Rational equations and problem solving

Chapter 10

1. Sec. 10.4 Exponential functions
2. Sec. 10.7 Logarithmic and exponential equations