MAT 137 Spring 2017 Three Rivers Community College Norwich, CT 06360

Instructor -- Marcorel Atilus Email: matilus@trcc.commnet.edu
Tuesday/Thursday 5:00pm - 6:35pm Room D226

Office Hours: Tuesday/Thursday 4:25pm-4:55pm, Room D205-2 or immediately after class

Pre-requisite:

Elementary Algebra Foundations MAT K095 or Elementary Algebra Intensive College Readiness MAT K095I

Required Text: Elementary and Intermediate Algebra – 5th Edition -- Baratto - Bergman

Course description:

Through lecture, discussion of material, and practice, this course continues the development of algebraic concepts and skills. 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. Questions during lecture can be very helpful and are encouraged.

Method of Evaluation

a) Quizzes
b) Homework Assignments
c) Chapter Tests
d) Final Exam

Quizzes

The quizzes will be given at the beginning of the class. There will be thirteen 10-point quizzes (the lowest three quizzes will be dropped and the remaining 10 quizzes will be counted as a test grade) Quiz times are between 10 and 15 minutes (depending on the level of the quiz). Students who arrive late and the quiz is still in progress will be able to take the quiz, but will need to turn in the quiz at the quiz due time. Students who arrive to class late, after the quiz time ends, will not be permitted to take the class quiz. Please plan to arrive to class on time each day.

Homework Assignments

Homework assignments for each chapter will be due on that chapter test date at the beginning of the class and at the end of the session, the homework assignments will be counted as a test grade.

Tests

There will be four tests **+ Final Exam**

Final Exam

The final exam is comprehensive

Course Evaluation

Tests will constitute 60% of the course grade, quizzes are worth 10%, homework assignments are worth 10% and final exam is worth 20% of the course grade
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.

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

CHAPTER	TOPIC	EXERCISES	DATE
6.1	An Introduction to factoring	486/9, 13, 31, 39, 43, 59, 67, 71, 79, 82	2/14/2017
6.2	Factoring special products	497/1, 6, 13, 23, 25, 43, 51, 53, 59, 60, 65, 69	2/16/2017
6.3	Factoring: Trial and Error	507 & 508/17, 22, 43, 53, 54, 57	2/16/17 Quiz #1
6.4	Factoring: The ac method	517 & 518/2, 15, 21, 31, 32, 38, 40, 59, 60, 78, 82	2/21/2017
6.5	Factoring strategies	524 & 525/1, 17, 23, 31, 43, 44, 53, 59, 77, 81	2/21/2017
6.6	Factoring and problem solving	537 - 539/5, 10, 21, 35, 45, 53, 58, 72, 90	02/23/17 & Quiz #2
Chapter 6 Test	**CHAPTER 6 TEST #1 02/28/17**	**Chapter 6 Test**	**2/28/2017**
7.1	Roots and radicals	560 & 570/1, 9, 14, 38, 49, 50, 57, 58, 69, 72	3/2/2017
7.2	Simplifying radical expressions	573/1, 2, 10, 26, 27, 41, 49, 71, 72	3/7/2017
7.3	Operations on radicals	584 - 587/1, 6, 11, 20, 33, 58, 61, 67, 75, 89	3/7/2017 Quiz #3
7.4	Solving radical equations	593 & 594/4, 8, 9, 16, 26, 27, 40, 48	3/9/2017
7.5	Rational exponents	603 & 604/1, 5, 6, 15, 23, 33, 46, 53, 65, 69	3/9/2017
7.6	Complex numbers	611 & 612/1, 5, 11, 15, 27, 36, 40, 51, 55	3/21/2017 & Quiz #4
Chapter 7 Test	**CHAPTER 7 TEST #2 03/23/17**	**Chapter 7 Test**	**3/23/2017**
8.1	Simplifying rational expressions	699 - 700/2, 10, 18, 25, 36, 48, 67, 74, 79	3/28/2017
8.2	The quadratic formula	651 - 653/2, 5, 8, 21, 29, 46, 55, 72, 73	3/30/2017 & Quiz #5
8.3	An introduction to parabolas	665 - 667/1, 2, 3, 9, 14, 21, 25, 35, 45	4/04/2017 & Quiz #6
8.4	Quadratic equations and problem solving	678 - 679/1, 3, 6, 23, 31, 35, 37	4/16/2017 &take home quiz #7
Chapter 8 Test	**CHAPTER 8 TEST #3 04/11/17**	**Chapter 8 Test**	**4/11/2017**

9.1	Simplifying rational expressions	699 - 700/2, 10, 18, 25, 36, 48, 67, 74, 79	4/13/2017
9.2	Multiplying and dividing rational expressions	710 - 711/2, 6, 11, 17, 28, 34, 37, 44	4/18/2017 & Quiz #8
9.3	Adding and subtracting rational expressions	721 - 723/1, 11, 23, 33, 36, 43, 55, 60	4/20/2017 Quiz #9
9.6	Rational equations and problem solving	762 - 765/2, 3, 18, 25, 51, 61, 67, 81	4/25/2017 take home quiz #10
Chapter 9 Test	**CHAPTER 9 TEST #4 05/02/17**	**Chapter 9 Test**	**4/27/2017**
10.4	Exponential functions	819 - 821/1, 2, 3, 10, 25, 37, 51, 59	5/2/2017& cumulative take
10.7	Logarithmic and exponential equations	859 - 861/1, 2, 14, 21, 31, 39, 47, 53, 57	5/2/2017 home quiz #11&12
Final Exam Review	**Final Exam Review 05/04/17**	**Final Exam Review**	**5/4/2017 & Quiz #13**
FINAL EXAM!	**FINAL EXAM! 05/09/2017**	**FINAL EXAM!**	**5/9/2017**

Make-Up Policy:

Attendance is mandatory on the day of a test or quiz. If a student cannot be present to take a test or quiz, the missed test will be recorded as a zero. If a student misses a quiz, this will become one of the lowest grade that is dropped at the end of the term.

There will be no make-up tests or quizzes, except for non-penalized absences such as religious holy day observances in his/her faith, the student's serious illness, death in the immediate family, or attendance to statutory governmental responsibilities. In the case of these exceptions, the instructor must be notified (by email) in advance of the reason for the absence and be provided documentation by the student.

Course Objectives and Outcomes.

At the completion of MAT137, the student will be able to do the following —

Linear Functions

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

Quadratic Functions and/or Expressions

1) Provide multiple representations of quadratic functions or expressions by hand and/or 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 with rational solutions) and/or graphically
5) Solve real world applications involving quadratic equations and functions

Exponential Functions and/or Expressions

1) Provide multiple representations (e.g., tables, graphs, symbols) of exponential functions or expressions by hand and/or 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 and/or solve graphically

Rational Functions and/or Expressions

1) Provide multiple representations of simple rational functions or expressions by hand and/or 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/or graphically
5) Solve real world applications involving rational functions

Radical Functions and/or Expressions

1) Provide multiple representations of simple radical functions or expressions by hand and/or 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/or graphically
5) Solve real world applications involving radical functions
6) Identify imaginary numbers

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

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.

Support Services:

Free tutoring is available at the Tutoring and Academic Success Center (TASC).

Please use the service as needed. Also, see me during office hours for extra help.

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.

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	• Physical Disabilities • Sensory Disabilities • Medical Disabilities • Mental Health Disabilities
Chris Scarborough (860) 215-9289	• Learning Disabilities • ADD/ADHD • Autism Spectrum