

Math 137 Syllabus for FALL 2011
Three Rivers Community College

Course: Intermediate Algebra MAT* K137

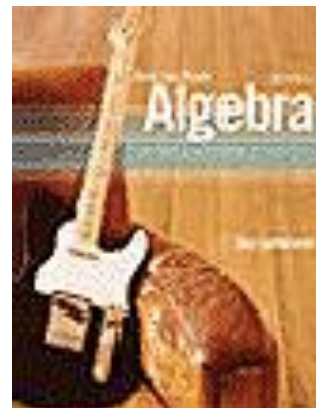
CRN: 10343

Prerequisites: Math 095 with a grade of C or better OR Acceptable Placement Score

Instructor: Linda Edmonds

Phone #: (860) 774-8511 ext 1122 (2 -3PM) – leave a message

E-mail: ledmonds@trcc.commnet.edu or Linda.edmonds@ct.gov



Text: Intermediate Algebra: Function Approach and Authentic Applications; 4th Edition by Jay Lehman

Use of Calculators: This course **requires** the use of a **TI83 Plus, TI84 Plus, or TI-Nspire CX CAS** graphing calculator.

MyMathLab Course Access Code: [edmonds97104](#) ALL HW and TESTS will be online.

(go to www.coursecompass.com to register for my course)

Meeting Time: Tuesday 5:30 to 8:15 PM

Room #: D109

Office Hours: Tuesday 4:30 to 5:15 PM or email for an appointment

Course Description: This course continues the development of algebraic skills and concepts. It also touches lightly on right triangle trigonometry. The topics include linear equations, right triangle trigonometry applications, functions and graphs, applications of systems of equations, inequalities, rational expressions and equations, operations on radicals and radical equations, rational exponents, quadratic equations, exponential and logarithmic functions.

Course Objectives: The objective of this course is to enable the student to understand and to work with, interrelate, and apply algebra governing: solutions of linear equations and inequalities, functions, solutions of systems of equations, rational expressions and equations, radical expressions and equations, solutions of quadratic equations, exponential and logarithmic functions. The student will also develop a basic understanding of Right Triangle Trigonometry.

Course Evaluation: The course is set up to be worth 1000 points broken down as follows:

Weekly Attendance / Participation	75 points (5 points weekly, must sign in by the first 30 minutes)
HW – end of semester	200 points
Application Project	125 points
4 Online Tests w/ corrections	400 points
Final Exam	200 points

There will be four online tests which must be completed online, printed and corrections submitted by the deadline. A cumulative final exam will be given **in class**. **In general, make-up of a missed test is not allowed. I MUST RECEIVE AN EMAIL BEFORE 5PM ON DUE DATE.** Exceptions to this rule may be made for extraordinary circumstances (grade may be adjusted). Test dates will be announced a week in advance.

	B+ 87-89	C+ 77-79	D+ 67-69	
A 94-100	B 83-86	C 73-76	D 63-66	F <60
A- 90-93	B- 80-82	C- 70-72	D- 60-62	

Homework: I expect all online homework assignments to be completed with MyMathLab. Weekly assignments will be posted and opened after class. Students are expected to complete assignments weekly but will also be able to return to each assignment to redo until the semester ends.

ONLINE HW GRADE	Time Invested in HW	Completed Assnmts.
180 - 200	40+ hours	100%
160 – 180	30-40 hours	90%
< 160	< 30 hours	< 80%

Attendance: For the learning process to be effective, you are expected to attend each class regularly, to arrive on time, and to take exams on their assigned dates. If you miss a class, you are still responsible for the material covered, homework assigned, and any announcements. If you will be missing a class for an any reason, please call or email me as soon as possible.

Withdrawal Policy: Students may withdraw, in writing at the Registrar's Office, for any reason up through Friday, DECEMBER 9, 2011. No withdrawals will be accepted after Friday, DECEMBER 9, 2011.

Support Services: TASC is the college's free tutoring and academic success center. Sign up a tutor or drop in as needed to the Thames Tutoring Center (860 885-2311) located in room C-117. Peers and peer study groups are also good resources. Meeting with me is another option available.

Academic Integrity Policy: Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor. Please see the Three Rivers Community College catalog for the college's Academic Integrity Policy.

Disabilities Statement: Students with disabilities, who require special accommodations and support services, are encouraged to notify Chris Scarborough (860 892-5751)

Cellular Phones and Beepers: Cellular phones and beepers must be turned off during class. Phones are not to be answered in class and texting in class will result in loss of class points that day. Please see me if extenuating circumstances should arise.

Inclement Weather: To obtain information on delays, changes, or class cancellations due to inclement weather or emergencies call 860 886-0177 or check your email.

NOTE STUDENT PRINT QUOTA (Spring 2011)

Student print quota specifics:

Allowed 500 pages per semester

Cannot print documents over 25 pages

Cannot print more than one copy of a document at once

MAT137 Course Outcomes

1. Factor an algebraic expression using a combination of greatest common factor, difference of two squares, sum or difference of two cubes, and/or trinomial factoring .
2. Use factoring procedures to solve equations and problems.
3. Solve compound linear inequalities of the form $C < ax + b < d$. Express answer algebraically, graphically, and using interval notation.
4. Isolate a particular variable in a literal equation.
5. Use quadratic formula to find exact values of a quadratic equation with irrational or imaginary solutions. Approximate the irrational solutions.
6. Solve basic exponential and logarithmic equations.
7. Evaluate basic logarithmic expressions, and convert between logarithmic and exponential form.
8. Solve an exponential equation that requires the use of logarithms.
9. Graph a quadratic function by finding the vertex, x- and y-intercepts.
10. Relate the discriminant in the quadratic formula to the graph of a parabola.
11. Graph a basic exponential or logarithmic function.
12. Know the graphical relationship between exponential and logarithmic functions.
13. Express the slope as a rate of change using appropriate units.
14. Write the equation of a linear function given data. Use functional notation in the answer.
15. Write the equation of an exponential function given data. Use functional notation in the answer.
16. Solve a 2×2 and 3×3 system of equations.
17. State the domain of linear, quadratic, exponential and logarithmic functions.
18. Evaluate functions using numerical and algebraic values.
19. Identify domain (inputs) and range (outputs) graphically for basic functions.
20. Interpret functional notation in a variety of application problems.
21. Determine if a relation is a function by looking at a graph, table, or equation.
22. Solve a rational equation and check for extraneous solutions.
23. Solve a radical equation that produces a second-degree equation. Check for extraneous solutions.
24. Know and apply the rules of integer and fractional exponents
25. Add, subtract, multiply, divide rational expressions. Reduce the answers.
26. Simplify a complex fraction.
27. Know the meaning of rational exponents and their relationship to radical form.
28. Simplify radical expressions with emphasis on cube roots and lower.
29. Rewrite radical expressions by rationalizing numerator or denominator.
30. Add, subtract, multiply, and divide radical expressions.
31. Solve application problems involving the Pythagorean Theorem.
32. Given a quadratic model, find and interpret the maximum or minimum values, and the intercepts.
33. Solve an application problem involving quadratic equations.
34. Solve an application problem that involves rational expressions.
35. Solve an application problem involving a given exponential or logarithmic model.
36. Solve applications involving linear systems.
37. Find the six trigonometric values of an acute angle
38. Solve triangles using right triangle trig, distinguish between the angle of depression and elevation.
39. Solve applied problems using right triangle trigonometry

COURSE SCHEDULE

WEEK	DATE	TOPICS	HW SETS	TEST OPENS	Work DUE
1	8/30	Appendix A – Prerequisite info Right Angle Trig & Applications Ch 1 Linear Functions	1) All - A1, A2, A3, A5, A7 Odd – A4, A6, A8, A9, A10, A11, A12 2) Trig Packet 1-31 3) Ch 1		
2	9/6	Graphing Calculator Review Ch 1 Linear Functions Linear Inequalities			
3	9/13	Ch 6 Polynomial Functions			
4	9/20	Ch 2 Modeling Review Exponent Rules Ch 3 Systems of Linear Equations		Online Test #1- Ch 1 & 6	
5	9/27	Ch 4 Exponential Functions		IN CLASS Right Angle Trig– 30 min	TEST 1 Corrections
6	10/4	Ch 5 Logarithmic Functions		Online Test # 2 – Ch 2 & 3	
7	10/11	Ch 5 Logarithmic Functions			TEST 2 Corrections
8	10/18	Ch 7 Quadratic Functions			
9	10/25	Ch 7 Quadratic Functions			
10	11/1	Ch 8 Rational Functions			
11	11/8	Radicals Ch 9 Radical Functions		Online Test # 3- Ch 4, 5, 7	
12	11/15	Ch 9 Radical Functions Project Handed Out – -DATA MINING & MODELING			TEST 3 Corrections
13	11/22	NO Class – Project Time			
14	11/29	FLEX CLASS – If more time is needed on other sections we will push the schedule down a week. REVIEW			PROJECT DUE
15	12/6	REVIEW		Online Test #4 – Ch 8 & 9	
16	12/13	FINAL EXAM			TEST 4 Correction

Pre-test Math 137 – To Be Completed ONLINE by 9/13/2011
KEEP YOUR WORK BECAUSE IT WILL BE VALUABLE FOR FINAL REVIEW

MAT137 Course Outcomes

PreTest -

- Factor an algebraic expression using a
 - greatest common factor,
 - difference of two squares,
 - sum or difference of two cubes,
 - trinomial factoring .
 - combination of greatest common factor, difference of two squares, sum or difference of two cubes, and/or trinomial factoring .
- Use factoring procedures to solve
 - equations and
 - problems.
- Solve compound linear inequalities of the form $C < ax + b < d$.
 - Express answer algebraically,
 - graphically, and
 - using interval notation.
- Isolate a particular variable in a literal equation.
- Use quadratic formula to find exact values of a quadratic equation
 - with irrational or imaginary solutions.
 - Approximate the irrational solutions.
- Solve basic exponential and logarithmic equations.
- Evaluate basic logarithmic expressions, and
 - convert between logarithmic and exponential form.
- Solve an exponential equation that requires the use of logarithms.
- Graph a quadratic function
 - by finding the vertex,
 - x- and y-intercepts.
- Relate the discriminant in the quadratic formula to the graph of a parabola.
- Graph a basic exponential or logarithmic function.
- Know the graphical relationship between exponential and logarithmic functions.
- Express the slope as a rate of change using appropriate units.
- Write the equation of a linear function given data.
 - Use functional notation in the answer.
- Write the equation of an exponential function given data.
 - Use functional notation in the answer.
- Solve a system of equations
 - 2×2
 - 3×3
- State the domain of
 - linear,
 - quadratic,
 - exponential and
 - logarithmic functions.
- Evaluate functions
 - using numerical and
 - algebraic values.
- Identify domain (inputs) and range (outputs) graphically for basic functions.
- Interpret functional notation in a variety of application problems.
- Determine if a relation is a function
 - by looking at a graph,
 - table, or
 - equation.
- Solve a rational equation and
 - check for extraneous solutions.
- Solve a radical equation that produces a second-degree equation.
 - Check for extraneous solutions.
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- Simplify a complex fraction.
- Know the meaning of rational exponents and their relationship to radical form.
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- Rewrite radical expressions by rationalizing numerator or denominator.
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