

31261 T10 TR 9:30 am – 10:45 am D 107
 31243 T7 TR 11:00 am – 12:15 pm D 104

INSTRUCTOR: Dr. Kelly Molkenthin (pronounced “molk-in-tine”)
 Office: C 234, 860-892-5712
 Email: kmolkenthin@trcc.commnet.edu

Office Hours: Mondays 11:00 am – 12:00 pm
 Wednesdays 11:00 am – 12:00 pm
 Thursdays 12:30 – 1:30 pm
 Fridays 11:30 am – 12:30 pm
 and by appointment.

REQUIRED MATERIAL:

- *Intermediate Algebra, 4th Edition*. Jay Lehmann. Pearson Higher Educ & Prof Group, 2011. ISBN # 9780321744470 or 9780321620958
- Scientific calculator (must have “e” and “ln” button), graphing calculation (TI-83 or TI-83 plus preferred) for later use.

CALCULATORS: Calculators will be needed for many homework problems and it is **REQUIRED** that you bring one to **every class** and **each exam**. Cell phones may **not** be used as calculators.

COMPUTERS: Online homework will be assigned regularly and will be completed using MyLab and Mastering at <http://pearsonmylab.com>. If you did not purchase a book which has an access code bundled with it, you will have to purchase an access code separately. To register with MyLab, you will need the following information:

Course name: **Intermediate Algebra - MAT 137 Fall 2011**

Course ID: **molkenthin06877**

Go to the above website and click on the tab *Student* under “Register”. Enter the course ID (see above) under “Enter Your Course ID” then click on *Continue*. It will now ask you to sign in with your Pearson account. If you have used MyMathLab in the past, you can log on here with your previous log-in information. If this is your first time using MyLab (previously known as MyMathLab), you will need to click on the blue “Create an account” link above the Username block. If you are creating an account for the first time, fill in the information requested, accept the license agreement and click “Create account”. If you have an account, you do not need to re-create one, just log on with your existing account username and password and you are ready to go. If you do not have an access code, you can purchase one now with a credit card by clicking on *Pay with a credit card or PayPal* under Enrollment Options. If you have an access code (inside the cover of a new textbook purchased from the bookstore), you are ready to register, so click *Use an access code* under Enrollment Options. Enter your six word access code when prompted, click *Next*, and follow the prompts to create your own login name and password.

Be sure to remember/record your user name and password. Forgetting your user name and/or password is NOT a valid reason for not completing assignments. After you have registered, return to the above website and you can now log in. Go to the *Welcome Page*, click on your course, and then choose the *Installation Wizard* link to make sure your computer has the required set-up and plug-ins. **Technical support** for the company is at 1-800-677-6337, Monday through Friday, 9 am – 6 pm.

GRADING:	4 One-Hour Exams:	400 points (100 each)
	Final Exam (cumulative):	150 points
	Weekly Quizzes:	100 points (10 each)
	MyLab	100 points
	Attendance and Participation:	50 points
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	Total:	800 points

Your final grade is the total number of points you have received divided by the total possible number of points. Final grades will be determined using the scale below:

A → 93% and above	A- → 90 - 92%	
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%

EXTRA CREDIT: There will be **no** “extra credit” assignments for this course.

ATTENDANCE: Attendance is required and will be taken for each class. An absence is excused **ONLY** for valid reasons (to be determined by the instructor) and if notification is given **PRIOR** to a missed class (via email or phone message – **not** word of mouth from another student). ***Also, if you miss a class it is YOUR responsibility to get the class notes from another student and **BE PREPARED** for the next class meeting (this includes taking the scheduled quizzes).***

CLASS CANCELCATION: In the unlikely event that a class needs to be canceled by the instructor, you will be notified by the instructor via email at least one hour prior to the class meeting on the day of the class cancelation.

HOMEWORK AND QUIZZES: Homework (both from the text and online) will be assigned on a regular basis. It is expected that you complete the online assigned problems by the due date on the assignment, and the homework in the text by the next class meeting. Your weekly quizzes will be testing the concepts emphasized from class that week and these homework assignments. We will have at least 12 quizzes throughout the semester. I will count your top 10 scores. Make-ups for missed quizzes will be given only in **EXTREME** circumstances and if arrangements are made **PRIOR** to the missed quiz. Any make-up quiz **MUST** be completed before 9 am on the day of next class meeting following the missed quiz. Extensions on MyLab assignments will be given in **EXTREME** situations. Students will be allowed no more than four MyLab extensions. Extensions on MyLab may not extend beyond the date of the exam containing the particular assignment for which the extension is being requested. Our expectation is that you are spending 2-3 hours of reading and doing homework for this class for every one hour we meet in class. So, you should expect to spend **at least 6-9 hours per week** on this class (outside of class meetings), every week!

EXAMS: You will have four in-class exams and one final exam. Exams are scheduled for the following dates: **Exam 1: Thursday 9/22/11, Exam 2: Tuesday 10/18/11, Exam 3: Tuesday 11/15/11, Exam 4: Thursday 12/8/11, Final Exam: Thursday 1/15/11.**

This may change (but hopefully not), depending on how we are doing. Make-ups for exams will be given only in **EXTREME** circumstances and if **PREVIOUS** arrangements are made. No exam will be administered prior to the date/time of the scheduled exam and **if you miss an exam, you will receive a grade of 0 (zero).**

RETENTION OF PAPERS: Students are expected to retain all graded work until final grades are received.

ACADEMIC DISHONESTY: 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 homework/labs. Communication or collaboration of ANY sort is ABSOLUTELY PROHIBITED during any quiz or 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 Honor Council. Do not let yourself come under the suspicion of academic dishonesty.

COURSE OBJECTIVES: This course continues the development of algebraic skills and concepts. The topics include, but are not limited to: linear equations, functions and graphs, systems of equations, inequalities, rational expressions and equations, quadratic equations, exponential and logarithmic functions and some trigonometry.

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

ACCOMMODATIONS: Students with learning disabilities should contact the Learning Specialist, Chris Scarborough at 860-892-5751 or cscarborough@trcc.commnet.edu as soon as possible to ensure timely accommodations. Students with physical disabilities should contact Judy Hilburger at 860-383-5420 or via email at jhilburger@trcc.commnet.edu or Matt Liscum at 860-383-5420 or via email at mliscum@trcc.commnet.edu to facilitate accommodations. All testing/quizzing 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/quiz for which accommodations are needed.

CELL PHONE POLICY: All cell phones must be turned OFF or MUTED before entering the classroom and properly placed in a bag or pocket (not left on a desk). Any cell phone ringing or beeping during a class is inappropriate and unacceptable. Texting during class is also inappropriate and will not be tolerated. Students found texting in class will be asked to leave and will lose their attendance points for that class period.

****The key to success in this course is to attend every class and do all the homework when it is assigned. Ask questions when you have them, either in class or in my office. You will find it much easier to learn the new topics if you consistently keep up with the course material and homework problems!****

TENTATIVE SCHEDULE

MAT K137 - FALL 2011

<u>Week of:</u>	<u>Chapter(s):</u>	<u>Topics Covered:</u>
8/30	1.6, HO	Functions, Trigonometry, Quiz #1 – Thursday 9/1
9/6	HO, 2.1 – 2.3	Trigonometry, continued, Linear Functions, Quiz #2 – Thursday 9/8
9/13	3.2 – 3.3	Systems of Linear Equations Quiz #3 – Thursday 9/15
9/20		Catch-up, Exam #1 – Chapters 1, 2, 3 & Trig - Thursday 9/22
9/27	4.1 – 4.4	Exponential Functions, Quiz #4 – Thursday 9/29
10/4	4.5, 5.2 – 5.4	Exponential Functions, continued, Logarithmic Functions Quiz #5 – Thursday 10/6
10/11	5.5, 5.6	Logarithmic Functions, continued, Catch-up Quiz #6 – Thursday 10/13
10/18	6.1, 6.2	Exam #2 – Chapters 4 & 5 – Tuesday 10/18 Polynomial Functions
10/25	6.4 – 6.6	Polynomial Functions, continued, Quiz #7 – Thursday 10/27
11/1	7.1 – 7.5	Quadratic Functions Quiz #8 – Thursday 11/3
11/8	7.6, 7.7	Quadratic Functions, continued, Catch-up Quiz #9 – Thursday 11/10
11/15	8.1 – 8.3	Exam #3 – Chapters 6 & 7 – Tuesday 11/15 Rational Functions
11/22	8.4 – 8.6	Rational Functions, continued, Quiz # 10 – Tuesday 11/22 ***No classes on Thursday 11/24 – Happy Thanksgiving!***
11/29	9.1, 9.2, 9.5	Radical Functions, Quiz #11 – Thursday 12/2
12/6		Catch-up, Quiz #12 – Tuesday 12/6 Exam #4 – Chapters 8 & 9 – Thursday 12/8
12/13		Final Exam – Thursday 12/15

The instructor has the right to change/modify this syllabus at any time with proper notification to the class