THREE RIVERS COMMUNITY COLLEGE
INTERMEDIATE ALGEBRA
SPRING 2013

Course : MAT-K137 **CRN:** 10635
Instructor: John A. Donato M.Ed.
Office Hours: 11:00 - 12:00 MWF or before class in classroom
Office Location: cafeteria
Phone Number: (401) 596-6935 (H) (401) 330-0170 (C)
E-mail: (preferred contact e-mail) **jdonato2@cox.net** or jdonato@trcc.commnet.edu
Classroom and Times: Rm D104 MWF 10:00 - 10:50

Textbook: "Elementary and Intermediate Algebra"; Bittinger, etal

Grading: there will be three tests counting for 100 pts each, a two hr final worth 150 pts and homework checked for 50 pts.

Course Description: This course continues the development of algebraic skills and concepts and touches on lightly on right triangle trigonometry. Topics include linear equations and inequalities, functions, systems of equations, radicals, solution of quadratic equations, rational equations, exponential and logarithmic equations.

Classroom Procedures:

- Cell phone – set cell phone on vibrate or off. Calls may be made from the hallway.
- Calculators are permitted. Please remove hats, hoods, etc.
- Make up tests due to absence are permitted the day the students returns to class. The student is responsible for informing the instructor, in advance, that he/she intends to take the test. Times may be arranged before or after the returning class but not during class.
- Attendance will be taken but not used for grade determination, however it is strongly recommended that you make a serious effort to attend classes.
- It is recommended that you dedicate enough time for homework and should do more problems than those assigned. (normally expected to dedicate 3 hrs for every hr spent in class)

Disability Accommodations: Reasonable accommodations for students with documented disabilities are provided in this class on an individualized and flexible basis. Any student with a disability, should contact Chris Scarboroug,Learning Disabilities Specialist (Students with learning disabilities or ADHD) cscarborough@trcc.commnet.edu or Kathleen Gray (Students with physical , medical or psychiatric disabilities) kgray@trcc.commnet.edu.

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 x 2 and 3 x 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

Tentative schedule for fall 2012

Date	Sect	
Jan 25	Review	
Jan 28	Review	
Jan 30	Review	
Feb 1	6.5,6.6	
Feb 4	6.7	
Feb 6	Trig	
Feb 8	Trig	
Feb 11	Trig	
Feb 13	7.1	
Feb 15	Exam	To trig sect
Feb 20	7.2	
Feb 22	7.3	
Feb 25	7.4	
Feb 27	7.5	
Mar 1	7.6	
Mar 4	7.7	
Mar 6	7.8	
Mar 8	7.9	
Mar 11	9.1	
Mar13	9.2	
Mar 15	10.1	
Mar 25	Exam	7.1 – 9.2
Mar 27	10.2	
Apr 1	10.3	
Apr 3	10.4	
Apr 5	10.5	
Apr 8	10.6	

Apr 10	10.8	
Apr 12	11.1	
Apr 15	Exam	Ch 10
Apr 17	11.2	
Apr 19	11.3	
Apr 22	11.4	
Apr 24	11.5	
Apr 26	11.6	
Apr 29	11.7	
May 1	Exam	11.1-11.6
May 3	11.7	
May 6	11.8	
May 8	12.1	
May 10	12.2,12.3	
May 13	12.4,12.5	
May 15	12.6,12.7	
May 17	Final	
May 20	Final	

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