Intermediate Algebra Math 154A-03 Spring 2013 4 units

INSTRUCTOR: Cindy Littell

OFFICE HOUR: TBA at the end of week 2

E-MAIL: ltcc.littellc@gmail.com

MEETING TIMES: Tuesday & Thursday 1:30pm to 3:20pm

MEETING PLACE: Room E106

REQUIRED TEXT: Elementary and Intermediate Algebra, 5th Ed, by Elayn

Martin-Gay

Homework log in: mymathlab.com

Course Code for Homework: littell04955

Course Description: MAT 154 is a continuation of MAT 152B and covers functions and inverses, exponential and logarithmic functions, sequences and series, and conic sections, quadratic equations, and systems of quadratic equations.

Prerequisite: A grade of "C" or better in Math 152B or equivalent or appropriate skills demonstrated through the Math Assessment process.

Students with disabilities must identify themselves to me within the first two weeks of class.

Accommodations for Students with Disabilities: Students requiring accommodations for a certain disability that may affect class performance are requested to schedule with a staff member at the DRC to discuss this during the first week of the quarter so that appropriate arrangements can be made. They only test and accept new students into the program during the first two weeks of each quarter, so don't put it off.

The **Math Success Center** (within A201) has free tutoring for all registered students. Please Log In and Out so that the facility gets the funds it needs to continue this free service.

Attendance and Etiquette: As a college student, you have voluntarily signed up for approximately 16 hours of Math a week this winter. It is therefore important to remind you that missing four classes will result in being dropped for non-attendance. Our time in class is a time of learning and is to be respected as such; therefore, disruptive behavior will not be tolerated. A two-class expulsion will be applied for any disruptive behavior.

As a Courtesy to everyone in class, please turn off your cell phones. Thank you.

How to succeed in a Math class:

- 1. Come to **every** class meeting.
- 2. Arrive early, be prepared, and take notes.
- 3. **Ask questions**, especially if you don't understand a concept.
- 4. Do **more than <u>just</u>** the homework problems.
- 5. Take advantage of the free tutoring service in the MSC and my office hour (tba).
- 6. Study in groups and do your homework with a classmate.
- 7. Start preparing for exams at least one week in advance.
- 8. Do some math **every** day.

Dropping: In this class, it is your responsibility to drop the class in order to avoid an unwanted grade. The drop date schedule is printed on the back of the quarter schedule.

Student Outcomes

The successful student will:

- 1. Exhibit a proficiency in the topics covered in the course;
- 2. Engage in logical and critical thinking;
- 3. Read technical and graphical information; and
- 4. Demonstrate the solution to problems by translating written language into mathematical statements, interpreting information, sketching relevant diagrams, analyzing given information, formulating appropriate math statements, and checking and verifying results.

Grading: Your class letter grade will be based on the usual grading scale:

A: 90% and above, B: 80-89%, C: 70-79%, D: 60-69%, F: $\leq 59\%$ Homework 150 points
Quizzes 150 points
3 Exam Exams 450 points
Comprehensive Final Exam: 250 points
Total 1000 points

Homework: All Homework assignments are online. Due Dates for each assignment are posted online. All Homework will be due by the next lecture. You may work on the homework after the due date to improve your score with a deduction in score for all late work.

Quizzes: There will be a daily closed-note quiz held in the first 5 minutes of class. The quizzes will consist of two questions, one from the homework, and one from the reading. Quizzes may not be made up.

Exam Exams: Exams are to be taken on the date scheduled unless you have a medical emergency. In such an event, please notify me as soon as possible to make arrangements and *your score will be reduced 10% per school-day late*. To take the exam early, if you are unable to take the exams at the scheduled time, you will need to email me a request stating why as well as the time of your scheduled appointment with the TLC at least one week in advance of the appointment.

Non-graphing calculators are allowed during testing. Please practice them with the homework.

The Comprehensive Final Exam is on June 27th, 2013. <u>Check the Schedule</u> of Classes for time.

Academic Integrity:

Homework may be done in groups with other students or with the help of the instructor or tutors, but each student must turn in their own work. Quizzes are to be done individually. Exams must be done by the student alone. Any Student who violates this rule will receive a zero on the Exam. A second offense will result in withdrawal, failing the course, or academic expulsion.

TENTATIVE SCHEDULE

Apr. 9 Apr. 9 Introductions/ Syllabus 4.4 Apr. 11 8.2 More functions Apr. 16 8.3 Apr. 18 Apr. 18 Apr. 23 I1.4 Apr. 25 I1.5 Apr. 30 I1.6 May 2 May 7 I2.1 I2.2 Inverse Functions Apr. 18 May 14 I2.4 Logarithmic Functions May 14 I2.4 I2.5 May 15 I2.6 May 2 I2.7 May 2 I2.8 More functions Apr. 20 Apr. 20 Introductions/ Solving Quadratics Apr. 20 Apr. 20 Inverse Functions and Their Graphs Algebra and Composition of Functions I2.2 Inverse Functions May 14 I2.4 Logarithmic Functions May 16 I2.5 Properties of Logarithms May 21 I2.6 May 23 I2.7 Exponential and Logarithmic Apps I2.8 More log apps and Review for Exam #2 Exam #2 May 30 I3.1 The Parabola and the Circle I3.2 Inverse Functions Nonlinear Systems of Equations Nonlinear Systems of Inequalities Jun. 4 I3.3 Solving Nonlinear systems of Equations Nonlinear Systems of Inequalities Jun. 11 I4.3 Arithmetic I4.4 Geometric Jun. 13 I4.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Jun. 27 COMPREHENSIVE FINAL	D-4-		Tania
4.4 3 x 3 systems of linear equations Apr. 11 8.2 More functions Apr. 16 8.3 Graphing functions Apr. 18 11.3 Solving Quadratics Apr. 23 11.4 Non-linear inequalities in one variable Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Review for Final	<u>Date</u>	Section	Topic
Apr. 11 8.2 More functions Apr. 16 8.3 Graphing functions Apr. 18 11.3 Solving Quadratics Apr. 23 11.4 Non-linear inequalities in one variable Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Review for Final	Apr. 9		•
Apr. 16 8.3 Graphing functions Apr. 18 11.3 Solving Quadratics Apr. 23 11.4 Non-linear inequalities in one variable Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Review for Final			
Apr. 18 11.3 Solving Quadratics Apr. 23 11.4 Non-linear inequalities in one variable Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Review for Final	-		
Apr. 23 11.4 Non-linear inequalities in one variable Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	Apr. 16	8.3	• 0
Apr. 25 11.5 Quadratic Functions and Their Graphs Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	Apr. 18	11.3	Solving Quadratics
Apr. 30 11.6 Quadratic Graphing Continued Review for Exam #1 May 2 Exam #1 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	Apr. 23	11.4	Non-linear inequalities in one variable
Review for Exam #1 May 2 May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 20 Review for Final	Apr. 25	11.5	Quadratic Functions and Their Graphs
May 2Exam #1May 712.1Algebra and Composition of Functions12.2Inverse FunctionsMay 912.3Exponential FunctionMay 1412.4Logarithmic FunctionsMay 1612.5Properties of LogarithmsMay 2112.6Logs: Common, Natural, change of baseMay 2312.7Exponential and Logarithmic AppsMore log apps and Review for Exam #2Exam #2May 28Exam #2May 3013.1The Parabola and the Circle13.2The Ellipse and the HyperbolaJun. 413.3Solving Nonlinear systems of Equations13.4Nonlinear Systems of InequalitiesJun. 614.1Sequences14.2SeriesJun. 1114.3ArithmeticJun. 1314.5Pascal's triangle and the Binomial TheoremReview for Exam #3Exam #3Jun. 18Exam #3Jun. 20Review for Final	Apr. 30	11.6	Quadratic Graphing Continued
May 7 12.1 Algebra and Composition of Functions 12.2 Inverse Functions May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final			Review for Exam #1
May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	May 2		Exam #1
May 9 12.3 Exponential Function May 14 12.4 Logarithmic Functions May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 May 28 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	May 7	12.1	Algebra and Composition of Functions
May 14 May 16 May 16 May 21 May 21 May 21 May 23 May 23 May 28 May 30 May 30 May 30 May 41 May 51 May 52 May 62 May 73 May 83 May 84 May 85 May 86 May 87 May 86 May 87 May 87 May 88 May 88 May 88 May 89 May 89 May 80 May 80	·	12.2	
May 14 May 16 12.5 Properties of Logarithms May 21 12.6 Logs: Common, Natural, change of base May 23 12.7 Exponential and Logarithmic Apps More log apps and Review for Exam #2 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 Jun. 13 Jun. 18 Exam #3 Jun. 20 Review for Final	May 9	12.3	Exponential Function
May 16 May 21 12.6 May 23 12.7 Exponential and Logarithmic Apps 12.8 More log apps and Review for Exam #2 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 Jun. 13 Jun. 18 Exam #3 Jun. 20 Review for Final	-	12.4	Logarithmic Functions
May 23 12.7 Exponential and Logarithmic Apps More log apps and Review for Exam #2 Exam #2 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 Jun. 13 Jun. 14 Exam #3 Jun. 20 Review for Final	May 16	12.5	Properties of Logarithms
May 28 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 Jun. 13 Jun. 14 Jun. 15 Review for Exam #3 Jun. 20 Review for Final	May 21	12.6	Logs: Common, Natural, change of base
May 28 May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 Jun. 13 Jun. 14 Jun. 15 Review for Exam #3 Jun. 20 Review for Final	May 23	12.7	Exponential and Logarithmic Apps
May 28Exam #2May 3013.1The Parabola and the Circle13.2The Ellipse and the HyperbolaJun. 413.3Solving Nonlinear systems of Equations13.4Nonlinear Systems of InequalitiesJun. 614.1Sequences14.2SeriesJun. 1114.3ArithmeticJun. 1314.5Pascal's triangle and the Binomial TheoremReview for Exam #3Jun. 18Exam #3Jun. 20Review for Final	·	12.8	More log apps and Review for Exam #2
May 30 13.1 The Parabola and the Circle 13.2 The Ellipse and the Hyperbola Jun. 4 13.3 Solving Nonlinear systems of Equations Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Review for Final	May 28		Exam #2
Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final		13.1	The Parabola and the Circle
Jun. 4 13.3 Solving Nonlinear systems of Equations 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	·	13.2	The Ellipse and the Hyperbola
Jun. 6 13.4 Nonlinear Systems of Inequalities Jun. 6 14.1 Sequences 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	Jun. 4	13.3	
Jun. 11 14.2 Series Jun. 11 14.3 Arithmetic 14.4 Geometric Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final		13.4	
Jun. 1114.3 14.4Arithmetic GeometricJun. 1314.5Pascal's triangle and the Binomial Theorem Review for Exam #3Jun. 18Exam #3Jun. 20Review for Final	Jun. 6	14.1	Sequences
Jun. 13 14.4 Geometric Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final		14.2	Series
Jun. 13 14.5 Pascal's triangle and the Binomial Theorem Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final	Jun. 11	14.3	Arithmetic
Review for Exam #3 Jun. 18 Exam #3 Jun. 20 Review for Final		14.4	Geometric
Jun. 18Exam #3Jun. 20Review for Final	Jun. 13	14.5	Pascal's triangle and the Binomial Theorem
Jun. 20 Review for Final			Review for Exam #3
Jun. 20 Review for Final	Jun. 18		Exam #3
Jun. 27 COMPREHENSIVE FINAL			Review for Final
	Jun. 27		COMPREHENSIVE FINAL