MAT* K095 **Elementary Algebra Foundations** Spring 2011

12145 T13 TR 8:00 am – 9:15 am E 204

Adjunct Instructor: Lynn S. Moorhouse
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Office Hours: by appointment or after class TR, (860)324-8911

REQUIRED MATERIAL:

- *Beginning Algebra, 5th Edition*. Elayn Martin-Gay. Pearson Prentice Hall, 2009.
  ISBN # 978-0-13-600702-9 (also, ISBN # 0-13-600702-3)

- Access code for *MyLab*.

- Scientific calculator (must have "*e*" and *"ln"* button)

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: **Elementary Algebra - MAT 095**

Course ID: **moorhouse15487**

Go to the above website and click on the tab *Student* under "Register". Enter the course ID (see above) under "Enroll in a New Course" then click on *Continue*. 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
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%

Please note: A letter grade of C or higher is required to advance to MAT*K137. A letter grade of C- will **not meet this requirement.**

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 CANCELATION: 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 the next class meeting following the missed quiz.
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: **Tuesday 2/21/12**, **Exam 2: Thursday 3/8/12**, **Exam 3: Tuesday 4/3/12**, **Exam 4: Friday 5/3/12**, **Final Exam: Tuesday, May 15, 2012.**
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 ABSOLUTEY 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 review basic mathematical concepts and introduces elementary algebraic

concepts and techniques. It is an extension of the basic algebra skills acquired in MAT* K075. The topics include signed numbers, solving first-degree equations, exponents, polynomials, and factoring, graphing, systems of linear equations, inequalities, radicals, and scientific notation. This course does not count towards the minimum requirements for graduation.

COURSE OUTCOMES:
1. Evaluate algebraic expressions
2. Determining if a given number is a solution to an equation or an inequality
3. Determining if an ordered pair is a solution to a linear equation in 2 variables

4. Add, subtract, multiply, and divide real numbers and raise a real number to an integer power
5. Add, subtract, multiply, and divide Polynomials
6. Simplify, add, subtract, multiply, and divide Radicals
7. Rules for Exponents
8. Greatest Common Factor (factoring)
9. Factor by Grouping
10. Factor trinomials of the form $x^2 + bx + c$
11. Factor trinomials of the form $ax^2 + bx + c$
12. Factor Perfect Square Trinomials
13. Factor the Difference of Two Squares
14. Factor Completely
15. Converting between Scientific Notation and standard notation

16. Order of Operations (manipulation)
17. Properties of Real Numbers (manipulation)
18. Simplifying Algebraic Expressions (manipulation)

19. Graphing in a Rectangular Coordinate System
20. Graphing Linear Equations by plotting points, using intercepts, and using the Slope-Intercept form
21. Graphing the solution to a Linear Inequality in one variable.
22. Graphing a System of Linear Equations in two variables
23. Rates of change (slopes)
24. Identifying Linear Equations (Linearity)
25. Solving Linear Inequalities in one variable
26. Finding the Equation of a Line (manipulation)
27. Solving Linear Equations in one variable
28. Solving formulas for a specified variable
29. Solving a System of Linear Equations in two variables (two methods)
30. Solving equations with degree 2 or greater by factoring
31. Two forms for the equation of a line (transforming back and forth)

32. Finding an unknown number word problem
33. Solving consecutive numbers (including odd and even) word problems
34. Solving dimension problems using geometric formulas
35. Solving Percent and Mixture problems
36. Solving table problems such as rate, time, and distance
37. Solving linear inequality problems
38. Solving linear equation in two variables problems
39. Solving System of 2 linear equations in 2 variables word problems
40. Solving factorable Quadratic Equation word problems

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.

ACCEPTANCE POLICY: After reading this syllabus, choosing to stay registered for this course exemplifies your acceptance of the syllabus and all policies and consequences outlined in the syllabus,   If you do not agree with any of the terms in the syllabus, you are free to withdraw immediately and you have up through September 1, 2011, to register for another section.

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 SYLLABUS   **MAT K095 - FALL 2011**

Week of:	Chapter(s):	Topics Covered:
1/16	1.2	Course Introduction, Symbols and Sets of Numbers,**Quiz #1**
1/23	1.4 – 1.8	Variable Expressions and Equations, Adding, Subtracting, Multiplying and Dividing Real Numbers, Properties of Real Numbers, **Quiz #2**
1/30	2.1 – 2.2	Simplifying Expressions, Addition Property of Equality, **Quiz #3,** No class on Feb 2
2/6	2.3-2.6	Multiplication Property of Equality, Solving Linear Equations Problem Solving, **Quiz #4**
2/13	2.7-2.9	Percent and Mixture Problem Solving, Solving Linear Inequalities, Review, **Quiz #4a**
2/20	3.1 – 3.2	**Exam #1 – Chapters 1 & 2, 2/21,** Rectangular Coordinate System, Graphing Linear Equations, **Quiz #5**
2/27	3.3-3.6	Intercepts, Slope and Rate of Change, Equations of Lines, Functions, **Quiz #6**
3/5		Catch-up,**– Exam #2 – Chapter 3, 3/8**
3/12	4.1 – 4.3	Solving Systems of Linear Equations by Graphing, Substitution and Addition, **Quiz #7**
3/19	Spring Break	SPRING BREAK NO CLASS

3/26 Catch-up,	4.4	Systems of Linear Equations and Problem Solving, **Quiz #8**
4/2	5.1 – 5.2	Exponents, Adding and Subtracting Polynomials, Multiplying Polynomials**, Exam #3 – Chapter 4, 4/3, Quiz #9**
4/9	5.3 - 5.5, 6.1	Special Products, Negative Exponents, Scientific Notation, Factoring Polynomials**,— Quiz #10**
4/16	6.2, 6.3, 6.5, 6.6	Factoring Trinomials and Factoring Binomials, **Quiz #11**
4/23	6.7	Solving Quadratic Equations by Factoring, **Quiz 12**
4/30		Quadratic Equations and Problem Solving, Catch-up, **Exam #4 – Chapters 5 & 6,**
5/7		Catch-up, Review
5/14		**Final Exam – Tuesday, May 15**

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