FALL 2008 **Elementary Algebra Foundations, Mat 095**

Prerequisite: Mat 075 or appropriate score on the mathematics placement exam
Instructor: **LARISA ALIKHANOVA**
Textbook: **Beginning Algebra, 5th Edition by K. Elayn Martin-Gay**

Course Description: The course introduces the basic algebraic skills and concepts. The topics include: signed numbers, first degree equations, inequalities, exponents, polynomials, factoring, graphing, and systems of linear equations.

Measurements: Quizzes, projects – 15%, each test – 20%, final exam 25%. Your final exam grade can be counted twice; it can replace your lowest or missed test grade.

Grading: A 94-100; A- 90-93; 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; F below 60.

Attendance: Attendance is extremely important. Your attendance, participation in classroom work and preparation for each class is required and is essential to your success in the course.

Plagiarism and Academic Honesty: At TRCC, we expect the highest standards of academic honesty. The Board of Trustees' Proscribed Conduct Policy prohibits cheating on examinations, unauthorized collaboration on assignments, unauthorized access to examinations or course materials, plagiarism.

Office Hours: M, W 10:30 a.m. – 11:30 a.m., 1:30 – 2:00 p.m., and Thursday 4:30 – 5:30 p.m. Room 204, Thames Valley Campus. Phone **#875-2375.**
E-mail **lalikhanova@trcc.commnet.edu**
Check your e-mail regularly for test/quiz/homework announcements. Check you email and MyCommnet for class cancellations.

Support Services: Tutorial services. Peers. Meeting with me for an extra help on an appointment basis. Mathematics Lab - MyMathLab

Disabilities Statement: Students with disabilities, who may require special accommodations and support services, are encouraged to notify:

1. Chris Scarborough, who is coordinating services to students with disabilities.
2. The instructor during the first two weeks of class.

Course Outline:

Chapter 1	Review of real numbers Sec. 1.2-1.8
Chapter 2	Equations, inequalities, and problem solving Sec. 2.1-2.8
	TEST
Chapter 3	Graphing Sec. 3.1-3.5
Chapter 4	Systems of Linear Equations Sec. 4.1-4.4
	TEST
Chapter 5	Exponents and polynomials Sec. 5.1-5.5
Chapter 6	Factoring Polynomials Sec. 6.1 - 6.6
	TEST
Chapter 8	Roots and Radicals Sec. 8.1 – 8.4
	FINAL EXAM

COURSE OUTCOMES:

- Translate Sentences into Mathematical Expressions.
- Identify Natural, Whole Numbers, Integers, Rational, Irrational Numbers, and Real Numbers.
- Evaluate Expressions; Use the Order of Operations Rule.
- Add, Subtract, Multiply, and Divide Real Numbers.
- Use the Properties of Real Numbers.
- Simplify Algebraic Expressions.
- Solve Linear Equations in One Variable.
- Solve Problems Involving Linear Equations in One Variable.
- Solve and Graph Linear Inequalities in One Variable.
- Graph Linear Equations in Two Variables.
- Find the Slope of a Line.
- Find the x- and y- intercepts.
- Identify Parallel and Perpendicular lines.
- Write the Equation of the Line.
- Solve Systems of Linear Equations by Graphing, by Substitution, by Addition.
- Use a System of Equations to Solve Problems.
- Evaluate Exponential Expressions.
- Use the Product, the Power, and the Quotient rules.
- Understand the Meaning a°, a^{-n}.
- Identify Monomials, Polynomials of Different Degree.
- Add, Subtract, Multiply and Divide polynomials.
- Know Special Products.
- Factor out the GCF.
- Factor by Grouping.
- Factor Trinomials and Binomials.
- Solve Quadratic Equations by Factoring.
- Quadratic Equations and problem solving.
- Simplify Radicals
- Perform the Operations on radicals

HOMEWORK ASSIGNMENT (Odd numbered problems). This is a guide only. The assignments may vary.

1.2	p. 15	41 – 49, 69-75
1.3	p. 22	67-81
1.4	p. 32	19-41, 57-61, 75-79
1.5	p. 40	43-53, 57, 59
1.6	p. 46	55-67
1.7	p. 56	43 – 49, 95-111
1.8	p. 63	51 - 61
2.1	p. 79	45- 65
2.2	p. 88	17- 39
2.3	p. 96	33 – 47
2.4	p.103	11 - 35
2.5	p. 111	1, 3, 5,11,13,15, 27
2.6	p. 122	15-23
2.7	p. 134	11, 15, 21, 39
2.8	p. 143	15, 19
2.9	p. 154	15 – 25, 69
3.1	p. 180	1 – 9, 19 – 29, 39, 41, 65
3.2	p. 192	19-27
3.3	p. 200	1 – 7, 13-29
3.4	p. 213	1 – 13, 25 – 31, 67, 69
3.5	p. 224	3-9, 25 – 35, 39 – 43, 69, 71
4.1	p. 256	1, 5, 13 – 25, 39 - 43
4.2	p. 263	1 – 11, 17, 33
4.3	p. 269	7- 23
4.4	p. 278	17, 19
5.1	p. 310	27 – 37, 43 – 55, 63 - 75
5.2	p. 320	39 - 43
5.3	p. 327	15 – 23, 31, 33, 41
5.4	p. 334	41-55
5.5	p. 343	19-35, 45-57
6.1	p. 369	29 – 39, 45, 47, 55 - 63
6.2	p. 376	1 - 19
6.3	p. 384	7 - 35
6.4	p. 390	17 - 27
6.5	p. 396	1 – 15
6.6	p. 408	1 – 15, 19 - 41
8.1	p. 509	7-17, 21 - 27
8.2	p. 516	1 – 27, 33 - 37
8.3	p. 520	1 - 15
8.4	p. 528	3-9, 19-29