BEGINNING ALGEBRA

COURSE DESCRIPTION:

Operations with signed numbers, algebraic expressions, linear equations and their graphs, inequalities, systems of equations, exponents and polynomials, factoring, and rational expressions

PREREQUISITE: Successful completion (grade of *C* or better) of Math 250 or equivalent.

OBJECTIVES:

Students will be able to:

- solve linear and rational equations, systems of equations and inequalities.
- graph linear equations and inequalities and to understand the relationship between a graph and the equation that generates it.
- understand, set up, solve and interpret the solution of application problems.

REQUIRED TEXT: Charles P. McKeague, <u>Elementary and Intermediate Algebra</u>, Saunders College Publishing, 2007.

MATERIALS NEEDED:

- □ 3-ring binder
- Binder Paper
- Pencil(s)
- Calculator
- Access Code to WebAssign

ATTENDANCE AND TARDY POLICY:

- Students are expected to attend all class meetings, be on time, and be in class the entire class session.
- The only excused absences are those due to a school-related activity or a requirement to appear in court. Calling me to tell me you will be absent **<u>does not</u>** excuse the absence.
- Students are expected to be on time. It is distracting, rude and unfair to fellow classmates and to the instructor when a student is late. **Two tardies will be counted as an absence.**
- If a student arrives late, it is his/her responsibility to inform the instructor **after class** so that the absence can be changed to a tardy.
- A student who misses **four (4) class sessions (or is tardy 8 times)** in the first 4 weeks of the semester **may** be dropped from the course. However, if a student decides

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 to no longer be enrolled in the course, it is the student's responsibility
 to make the drop official in the Admissions and Records office or else possibly receive a grade of F.

Attendance Grade: Each student will begin the semester with **twenty-four (24)** attendance points. Attendance in this class will be a part of the grade for this course. Each absence will result in the loss of **six (6)** attendance points, and each tardy will cost you **three (3)** points. If you are absent more than **four (4)** times, you will continue to lose points per absence or tardy, but now these points will be taken from other earned points, such as homework and tests. **If you leave class early you will lose three (3)** attendance **points**!

HOMEWORK:

- Homework is assigned on a regular basis at <u>www.webassign.net</u> as well as in class. <u>Homework will not be accepted late for any reason</u>.
- Written problems and exercises must be worked out thoroughly, completely and neatly, otherwise the work will not receive full credit.

Note: Being absent on the day homework is collected does not give you the right to turn in the assignment late.

TESTS:

- Six (6) chapter tests, worth 100 points each, will be given.
- An average score of 70% on the unit's homework is a *prerequisite* for the exam. If you have earned *at least 70%* of the possible homework points for that unit, then whatever score you earn on your exam will be the score entered for your exam grade. If, however, you earn *less than 70%* on your homework, then the *average of your homework grade and your test score* will be the score entered for your exam grade.
- There are **NO MAKEUPS** for missed tests. **<u>NO EXCEPTIONS</u>**!!
- If you absolutely <u>must</u> be absent on the day a test is scheduled, you may discuss with me the possibility of taking the test <u>early</u>.

FINAL EXAM:

A two hour comprehensive final exam worth 100 points will be given at the end of the 9-week session during the last class meeting. This final exam is *mandatory and will count as a regular exam.* The final **may** be used to replace a low test score or a missed test. The final **may not** be used to replace the homework grade or participation grade.

GRADING:

• **HOMEWORK**: All of your homework scores will be added up and divided by the total possible points for the semester. This number is then multiplied by 100 to give a score between 0 and 100. Homework counts for **25%** of your grade.

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- **TESTS:** All of your test percentages and the final will be averaged. This will give you a score between 0 and 100. Tests count for **70%** of your grade.
- **Attendance:** Your attendance points will be divided by 24 (total possible) and then ٠ multiplied by 100 to give a score between 0 and 100. Participation counts for **5%** of your grade.

	HOMEWORK	25%
ſ	EXAMS AND FINAL	70%
	ATTENDANCE	5%

Example: If your homework grade is 75, your exams grade is 85 and, attendance is 90, then you would compute your grade as follows:

(.25)(75)+(.70)(85)+(.05)(90)=18.75+59.50+4.50=82.75

Your grade will then be determined by the following **grading scale**:

% Earned	Grade
89 – 100	Α
78 – 88	В
67 – 77	С
55 – 66	D
0 – 54	F

Academic Dishonesty: Academic dishonesty in any form is a very serious offense and will incur serious consequences, including but not limited to receiving a grade of F in the course. For the college policy on cheating and plagiarism, see the college catalog.

Important Dates:

- August 28, 2009 Last day to add •
- September 7, 2009 Labor Day Holiday
- September 4, 2009 Last day to file for Pass/No-Pass grading basis •
- September 11, 2009 Last day to drop

FINAL EXAM: Friday, October 16, 2009: 10:00 – 11:50 (FEM - 4)

NOTE: If you have a verified need for an academic accommodation or materials in alternate media per the Americans with Disabilities Act or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

COURSE OBJECTIVES

Upon completion of this course, students will be able to:

- A. recognize the real number system, its subsets and how to perform operations on numbers from these subsets.
- B. simplify algebraic expressions and solve linear equations and inequalities
- C. graph linear equations in two variables and solve systems of linear equations.
- D. simplify expressions using the properties of exponents and perform operations with polynomials.
- E. factor algebraic expressions and solve equations of degree greater than one.
- F. perform arithmetic operations on rational expressions and solve equations containing rational expressions.

COURSE CONTENT OUTLINE

- A. Number Systems and Operations
 - 1. The set of real numbers and its subsets
 - 2. Addition, subtraction, multiplication and division of real numbers
- B. Linear Equations and Inequalities
 - 1. Simplifying expressions
 - 2. Solving equations using the addition and multiplication properties of equality
 - 3. Applying the addition and multiplication properties to solve formulas
 - 4. Applying the addition and multplication properties to solve inequalities
 - 5. Applications
- C. Graphing and Linear Systems
 - 1. Graphing ordered pairs
 - 2. Finding solutions to linear equations in two variables
 - 3. Finding axis intercepts and using them to graph the equation
 - 4. Solving systems by graphing, addition, and substitution method
 - 5. applications of systems
- D. Exponents and Polynomials
 - 1. Multiplication and division with exponents
 - 2. Operations with monomials
 - 3. Addition, subtractions, multiplication, and division of polynomials
 - 4. Special products
- E. Factoring
 - 1. Greatest common factor
 - 2. Factoring by grouping
 - 3. Factoring trinomials
 - 4. Special factoring
 - 5. Solving equations by factoring
 - 6. Applications
- F. Rational Expressions
 - 1. Reducing rational expressions
 - 2. Multiplication, division, addition, and subtraction of rational expressions
 - 3. Solving equations with rational expressions
 - 4. Solving proportions
 - 5. Applications