

Math 101-56373, 56375

Newton Avetisyn

Office:

Office Hours:

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5<sup>00</sup> PM - 7<sup>50</sup> PM.

Beginning Algebra

REEDLEY COLLEGE

FALL ~~Spring~~ 2009

Meeting Room:

Meeting Days: ~~M, T, W, TH~~

M, W

**Course Description:** Operations with signed numbers, algebraic expressions, linear equations and their graphs, inequalities, exponents, radical expressions and equations, factoring, rational expressions and equations, quadratic equations and applications.

**Basic Skills Advisories:** Eligibility for ENGL 126

**Subject Prerequisites:** Math 250 or Equivalent

**REQUIRED TEXT:** Charles P. McKeague, Elementary and Intermediate Algebra, Saunders College Publishing, 3<sup>rd</sup> Edition, 2008.

**REQUIRED NOTES:** Math 101 Notes are to be purchased from the bookstore. You will need both Chapters 1-3 and then available later in the semester notes for Chapters 4-6.

**ATTENDANCE:** Students are expected to attend all class meetings, be on time, and be in class the entire class session. Calling me to tell me you will be absent **does not** excuse you. **STUDENTS LEAVING CLASS BEFORE THE END OF CLASS WILL BE COUNTED AS BEING ABSENT!** Three (3) absences may result in a drop from the course. However, if you decide to drop the course, it is your responsibility to make the drop official in the Administrations and Records office or else possibly receive a grade of F.

**Behavioral Standards:** Your classmates and I would greatly appreciate that students in the class take care of any personal needs (i.e., using the restroom, getting a drink, sharpening a pencil) before class begins. Please turn your phone off when entering the class. You may not use your phone as a calculator. I would appreciate that you not bring guests to class.

**NOTE:** The drop deadline is

**TARDIES:** 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. If you are not present when roll is taken you will be counted as absent.

**HOMEWORK:** Some homework will be collected. Each assignment collected will be graded on completeness, neatness, and effort. Homework should be written on one side of a standard sized paper 8.5" x 11" (No spiral paper please) stapled in the upper left-hand corner, and in order. Homework should be written in pencil. Record the class name, your name, homework (chapter, section and problems), and date on each homework assignment. On graded homework, a selected few problems will be graded. You will also be given homework checks. If you miss a homework check or are late to class, you can still take the homework check before the next class, for a possible 40% of its worth. Problems must be written out (except word problems) and all work must be shown in order to receive credit. **NO LATE HOMEWORK WILL BE ACCEPTED!** Note: *Being absent the day homework is collected does not entitle you to turn it in late!*

**MAKEUP ASSIGNMENTS:** An optional makeup assignment will be available for each chapter. This makeup is worth five (5) points and can be used to help makeup missed assignments, increase low homework grades or as extra credit homework points.

**TESTS:** There are no makeup exams for missed tests. NO EXCEPTIONS!

**FINAL EXAM:** A two-hour comprehensive final exam worth 1 test will be given at the end of the semester during finals week. You are required to take the final exam, however the final exam will replace your lowest test score. If your class starts at 8:00 AM then your final is Wednesday, December 12, 8:00-9:50. If your class starts at 9:00 Am then your final is Monday, December 10, 9:00-10:50.

Students are required to participate in all class discussions and activities. You may not start the homework during class. You may not study for another class or read a book during class.

**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.
- ***TESTS:*** All of your test percentages will be averaged. This will give you a score between 0 and 100.
- Your homework grade is worth 20% of your grade. Your test score is worth 80% of your grade.  
*Example:* If your homework grade is 75 and your test grade is 85, then you would compute your grade as follows:

$$(.20)(75) + (.80)(85) = 15 + 68 = 83$$

<u>Percent of Total Points</u>	<u>Grade</u>
89-100	A
78-88	B
65-77	C
55-64	D
0-54	F

**WHERE TO FIND YOUR GRADE:**

- Occasionally your grade will be emailed to you
- Available at <http://sc.webgrade.classmanager.com/ReedleyCollege/> Your class will be identified by schedule number.
- You can also find it [www.reedleycollege.edu](http://www.reedleycollege.edu) . Click on Academic Programs. Under other links click on Micrograde and Webgrade. Enter your Reedley College Student ID number and password.

**SPECIAL NEEDS REQUESTS:** If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

**Academic Dishonesty**

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

**Cheating** is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

**Plagiarism** is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

### **Course Objectives**

In the process of completing this course, the student will:

- A) learn 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 Outcomes**

Upon completing this course students will demonstrate the ability to:

- A) add, subtract, multiply, and divide integers and rational numbers.
- B) apply the concept of like terms, to simplify expressions, and the addition and multiplication properties of equality to solve linear equations and inequalities.
- B) generate solutions to equations with two variables, use these solutions to graph the equation and determine the intercepts of the equation both from the graph generated and the given equation; solve systems of equations through the use of graphs, the addition method and the method of substitution.
- C) apply the properties of exponents to the multiplication, division, addition and subtraction of both monomials and polynomials.
- E) find the greatest common factor of an algebraic expression as the first step to its factorization; factor binomials, trinomials, and expressions with four or more terms. Apply the techniques of factoring to solve equations of degree greater than one.

- F) reduce, add, subtract, multiply and divide expressions containing algebraic rational expressions; apply concepts of solving equations to the solving of equations containing rational expressions.

**COURSE CONTENT OUTLINE:**

- A) **Number Systems and Operations (Chapter 1, 17 Hours)**
1. The set of real numbers and its subsets
  2. Addition, subtraction, multiplication and division of real numbers
- B) **Linear Equations and Inequalities (Chapter 2, 13 Hours)**
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 multiplication properties to solve inequalities
  5. Applications
- C) **Graphing and Linear Systems (Chapter 3, 12 Hours)**
- 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 (Chapter 4, 11 Hours)**
- 1) Multiplication and division with exponents
  - 2) Operations with monomials
  - 3) Addition, subtractions, multiplication, and division of polynomials
  - 4) Special products
- E) **Factoring (Chapter 5, 12 Hours)**
- 1) Greatest common factor
  - 2) Factoring by grouping
  - 3) Factoring trinomials
  - 4) Special factoring
  - 5) Solving equations by factoring
  - 6) Applications
- F) **Rational Expressions (Chapter 6, 12 Hours)**
- 1) Reducing rational expressions
  - 2) Multiplication, division, addition, and subtraction of rational expressions
  - 3) Solving equations with rational expressions
  - 4) Solving proportions
  - 5) Applications
  - 6) Simplifying complex fractions