Syllabus for: Elementary Algebra	
Semester & Year:	Summer 2014
Course ID and Section Number:	MATH 380 – E5794
Number of Credits/Units:	5
Day/Time: **Location:**	M, T, W, TH from 11:15a.m. – 1:20 p.m. Room SCS206
Instructor's Name:	Richard Ries
Contact Information:	Office location and hours: in the math lab from 10:30am – 11:15am M,T, W, TH and by appointment Email: Richard-Ries@redwoods.edu

Course Description (catalog description as described in course outline): A comprehensive review of arithmetic involving whole numbers, fractions, decimals, and signed numbers. Students will solve problems involving ratios, proportions, percents and geometry. Basic algebra concepts and techniques such as variables, simplifying expressions, solving equations will also be introduced. Problem solving, estimation and the communication of mathematical ideas are an integral part of the course. Use of a scientific calculator will be introduced.

Student Learning Outcomes (as described in course outline):

1. Students should be able to read, write, and speak accurately about mathematical ideas using correct mathematical notation.
2. Students should be able to apply the mathematics they have learned to real-world problems and applications.
3. Students should be able to use graphs and the graphing calculator to explore mathematical concepts and to verify their work.
4. Students should be able to demonstrate competency in the required prerequisite skills for all transfer level math courses.
5. Students should be able to demonstrate the characteristics of an effective learner, such as note-taking, critical reading, etc.
6. Students should be able to explain the concept of function, identify the characteristics of different classes of functions, and use functions to solve problems in mathematics.
7. Students should be able to demonstrate the algebraic skills that will support success in the other outcomes.

Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.

Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.

The student code of conduct is available on the College of the Redwoods website at: http://www.redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20final%2002-07-2012.pdf

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

Math 380 Syllabus

Textbook:

Online at *http://mathrev.redwoods.edu/ElemAlgText/*

Graphing calculator TI 83/ TI 84 required

Student Learning Objectives: Upon successful completion of the course, students should be able to:

1. Use properties of real numbers to solve linear equations, inequalities, and systems of linear equations.
2. Solve non-linear equations by factoring.
3. Draw and interpret graphs and solve problems graphically.
4. Use sound mathematical writing and appropriate use of symbolism in presenting solutions of mathematical exercises and applications.

Instructor Philosophy: The focus of learning is the student's analysis of experiences. Skill is required to combine first hand experiences, dialogue, thoughtful analysis and interpretation to give meaning and application of these experiences to life. Learning as an adult is an expansion of one's knowledge (facts and ideas), thinking (ability to assess) and behaviors (skills). Successful learning requires the cooperative efforts of both teachers and students. I am here to provide resources and facilitate the pursuit of your education. Studies have shown that the most successful students are those who ask questions and participate in discussions. I look forward to working with a class who, as adults, understand that the acquisition of knowledge is a matter of personal responsibility that requires active participation.

Goals of This Course: The goal of this course is to help you to become proficient in the foundational ideas of algebra and prepare you for success in your studies (and other future math classes, if your major requires it). Many subjects use algebra as their basis today so it is important to have a firm understanding of algebra for most disciplines. The best way to master any math topic is to practice by doing exercises. The more you practice, the better you will become. Other successful learning strategies include forming study groups and outlining reading materials. If you are having difficulty with any topic, please come see me early to get you back on track as soon as possible. You can either see me during my office hours, or make an appointment by email at Richard-Ries@redwoods.edu. Catching me after class is best. With the right attitude, stats can be fun^2!

Student Responsibilities: You are expected to come to class prepared by having read the assigned chapters and handouts, and completed all prior assignments. Proper adult behavior is expected at all times. The instructor reserves the right to dismiss a student from class permanently for disruptive behavior. Disruptive behavior is any behavior that distracts the instructor or other students. The instructor has an obligation to promote the learning of the students of the class and anyone who is disrupting the learning process will be dropped for lack of academic effort. A lack of academic effort also includes, but is not limited to the following: missing or failing assignments, excessive absences, arriving late to class, exiting class before its termination, cheating, plagiarism or other disruptive behaviors. Also, please have your cellular phones off while in class and do not bring food or drink to class. If you wish to be dropped from the class it is your responsibility to do so.

Homework: Homework will be assigned daily and is due the following class session. For each section that is covered, you will be expected to complete either every odd exercise or every other odd exercise for each section we lecture on in your book as well as the hand out assignments that will be distributed after the completion of each section. There will be 20 homework assignments worth a total of 5 points each. Points will be awarded based on two criteria: 3 points will be awarded for the student's attempt to complete the assignment and 1 point

for each correct answer of 2 problems selected for grading from each assignment. So, 100 points, or 10% of your class grade, will come from homework.

Quizzes and Group work: There will 10 scheduled quizzes in accordance to the dates posted and an additional 10 Pop quizzes or group activities that will be given at random and unannounced. Quizzes will be generated from the previous two homework assignments. The questions that appear on quizzes will be similar in nature to your homework. During group work, you will be asked to work cooperatively with two, or three, of your classmates to solve a problem that I will assign to you. Your group will then present the solution and explain how your group solved the problem to the rest of the class. Grades from quizzes and group work are worth 5 points each for a total of 100 points, or 10% of your class grade.

Tests: There will be 4 midterm tests and a final in this class. See the attached handout for the dates. Please remember that **only under extreme emergency will I give a make up exam**. Documentation must be provided (e.g. police report, proof of hospitalization, etc.). Calculators are not allowed on any of the exams. Cheating is a very serious offence and anyone caught cheating will receive a grade of "F" for the course, and will be reported to the committee of academic honesty. I expect all problems to be worked out completely and legibly. Please also note that the final is cumulative. Each Midterm exam will be graded out of 150 points and will count for 15% of your class grade. The final will be worth 200 points and will count as 20% of your class grade.

Note: in order to pass this class you must successfully complete the final examination.

Math 380 Homework

	3.4 1-23 odd	6.2 1-57 odd
1.1 1-51 eoo	3.5 1-25 odd	6.3 1-43 eoo
1.2 1-67 eoo, 75	3.6 1-33 odd	6.4 1-45 eoo
1.3 1-71 eoo	4.1 1-29 eoo	6.5 1-83 eoo
1.4 1-67 eoo	4.2 1-47 eoo	6.6 1-59 eoo
1.5 1-61 odd	4.3 1-39 odd	6.7 1-21 eoo
2.1 1-49 eoo	4.4 1-15 odd	7.1 1-75 eoo
2.2 1-55 eoo	5.1 1-45 odd	7.2 1-41 odd
2.3 1-31 eoo	5.2 1-59 eoo	7.3 1-47 odd
2.4 1-37 eoo	5.3 1-15 odd	7.4 1-25 eoo
2.5 1-33 eoo	5.4 1-37 odd	7.5 1-29 eoo
2.6 1-83 eoo	5.5 1-57 odd	8.1 1-41 eoo
3.1 1-25 odd	5.6 1-55 odd	8.2 1-39 eoo
3.2 1-25 eoo	5.7 1-77 eoo	8.3 1-55 odd
3.3 1-29 odd	6.1 1-75 eoo	8.4 1-39 eoo

Note: Odd means 1, 3, 5, 7, …. While eoo (every other odd) means 1, 5, 9, 13, …

			Grade Record				
Homework	10%	100 pts.	____	____	____	____	____
			____	____	____	____	____
			____	____	____	____	____
			____	____	____	____	____(5 each)
Quizzes/Class projects	10%	100 pts.	____	____	____	____	____
			____	____	____	____	____
			____	____	____	____	____
			____	____	____	____	____(5 each)
Midterm 1	15%	150 pts.	____				
Midterm 2	15%	150 pts.	____				
Midterm 3	15%	150 pts.	____				
Midterm 4	15%	150 pts.	____				
Final Exam	20%	200 pts.	____				
Total	100%	1000 pts.				Total _____	

If you need your course grade as soon as possible, please e-mail me at Richard-Ries@redwoods.edu.

Attendance: I reserve the right to drop from the course any student that has more than three unexcused absences. Reference: Title 5, Sections 55024 and 58004. Approved: 05/01/2012

******* I expect you to attend every class meeting on time and ready to learn. ********

GRADE SYSTEM: Your final grade will be determined as follows :

I will be using the plus/minus grade system. The break down is

A 930-1000	B 830-869	C 700-769
A- 900-929	B- 800-829	D 600-699
B+ 870-899	C+ 770-799	F 0-599

Or in terms of percent's, the break down is as follows:

A 93-100%	B 83-86.9%	C 70-76.9%
A- 90-92.9%	B- 80-82.9%	D 60-69.9%
B+ 87-89.9%	C+ 77-79.9%	F 0-59.9%

This information is subject to change depending on class circumstances.

MATH 15 Weekly Schedules

NOTE: This schedule is approximate and may be modified as the semester progresses.

Week	Topics
1 5/27 5/28	Introduction 1.1 An Introduction to the Integers 1.2 Order of Operations 1.3 The Rational Numbers
1 5/29	1.4 Decimal Notation 1.5 Algebraic Expressions 2.1 Solving Equations: One Step 2.2 Solving Equations: Multiple Steps
2 6/2 6/3	2.4 Formulae 2.5 Applications 2.6 Inequalities Review for Exam 1
2 6/4 6/5	Exam 1 3.1 Graphing Equations by Hand 3.2 The graphing Calculator 3.3 Rates and Slope
3 6/9 6/10	3.4 Slope-Intercept Form of a Line 3.5 Point-Slope Form of a Line 3.6 Standard Form of a Line 4.1 Solving Systems by Graphing
3 6/11 6/12	4.2 Solving Systems by Substitution 4.3 Solving Systems by Elimination 4.4 Applications of Linear Systems Review for Exam 2
4 6/16 6/17	Exam 2 5.1 Functions 5.2 Polynomials 5.3 Applications of Polynomials 5.4 Adding and Subtracting Polynomials
4 6/18 6/19	5.5 Laws of Exponents 5.6 Multiplying Polynomials 5.7 Special Products 6.1 The Greatest Common Factor
5 6/23 6/24	6.2 solving Nonlinear Equations 6.3 Factoring $ax^2 + bx + c$ when $a = 1$

Week	Topics
5 6/25 6/26	6.4 solving $ax^2 + bx + c$ when $a \neq 1$

Week	Topics
6 6/30 7/1	6.5 factoring Special forms
6 7/2 7/3	6.6 Factoring Strategy
7 7/7 7/8	6.7 Applications of Factoring Review for Exam 3 Exam 3
7 7/9 7/10	7.1 Negative Exponents 7.2 Scientific Notation
8 7/14 7/15 7/16 7/17	7.3 Simplifying Rational Expressions 7.4 Solving Rational Equations 7.5 Direct and Inverse Variation
9 7/21 7/22 7/23 9 7/24 10 7/28 7/29 7/30 7/31	8.1 Introduction to Radical Notation 8.2 Simplifying Radical Expressions 8.3 Completing the Square 8.4 The Quadratic Formula Review for Exam 4 Exam 4 Review for Final Exam Final Exam

The Homework for each section will be the odd or every other odd numbered problems at the end of each exercise set.