

## Syllabus for: Math 380 - Elementary Algebra

<b>Semester &amp; Year:</b>	Fall 2012
<b>Course ID and Section Number:</b>	MATH-380-E1878
<b>Number of Credits/Units:</b>	5
<b>Day/Time:</b>	MTWTh 1:15PM-2:30PM
<b>Location:</b>	LRC 105
<b>Instructor's Name:</b>	Chris Panza
<b>Contact Information:</b>	Office location and hours: PS 119C, TTh 12:00PM-1:00PM Phone: (707) 476-4100 ext. 4856 Email: Chris-Panza@redwoods.edu

### **Course Description (catalog description as described in course outline):**

A study of the real number system, first-degree linear equations and inequalities, polynomial expressions and equations, factoring, radicals, quadratic equations and the quadratic formula, interpretation of graphs, and problem-solving techniques. Small group work and exploratory activities (including the use of the graphing calculator) are involved in this course.

### **Student Learning Outcomes (as described in course outline) :**

1. Add, subtract, multiply and divide whole numbers, integers, and rational numbers.
2. Evaluate algebraic expressions with one or more variables.
3. Simplify polynomial expressions (add, subtract and multiply).
4. Solve linear equations.
5. Apply the five step problem solving process to solve applications (word problems).

**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/Ap5500.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 – Elementary Algebra

E1878 • Fall 2012

LRC 105 • MTWTh • 1:15pm – 2:30pm

**Instructor:** Chris Panza

**Email:** [chris.panza.cr@gmail.com](mailto:chris.panza.cr@gmail.com)

**Website:** <http://msemac.redwoods.edu/~cpanza/>

**Office:** PS 119C

**Office Hours:** TTh 12:00pm – 1:00pm

## Cell Phones

Cell phones are a nuisance and distraction for you, me, and your fellow students. Keep them on silent (or off) and put away for the duration of class. The use of cell phones during class is prohibited.

## Prerequisite

Math 376 with a grade of C or better or appropriate score on the assessment test.

## Course Description

A study of the real number system, first-degree linear equations and inequalities, polynomial expressions and equations, factoring, radicals, quadratic equations and the quadratic formula, interpretation of graphs, and problem-solving techniques. Small group work and exploratory activities (including the use of the graphing calculator) are involved in this course.

## Course Objectives

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

## Textbook

*Elementary Algebra, Second Edition: 2012-2013*, College of the Redwoods, Department of Mathematics  
Available on disk or online. I highly recommend you also order a printed copy from the bookstore (\$30 each, loose-leaf) or from [lulu.com](http://lulu.com):

**Elementary Algebra Textbook (\$20 bound):**

<http://www.lulu.com/shop/david-arnold/elementary-algebra/paperback/product-20276557.html>

**Elementary Algebra Solutions Manual (\$18 bound):**

<http://www.lulu.com/shop/david-arnold/elementary-algebra-solutions-manual/paperback/product-20276540.html>

## Calculators

You will need a graphing calculator; I recommend a TI-83 or TI-84. Calculators are available for rent. Also, check local pawn shops, Craigslist, Ebay, etc. Cell phones will not be allowed to be used as a calculator.

## Grading

<u>Homework</u>	35%	90 – 100%	A
Part (A)	30%	80 – 89%	B
Part (B)	5%	70 – 79%	C
Quizzes	35%	60 – 69%	D
Exams	30%	Below 60%	F

I will assign +/– grades for the top and bottom 3% of each category. I always round UP to the nearest whole percent.

## Homework

All work in homework is a worthwhile investment. You are encouraged to work together on your homework assignments. There are two parts to each assignment. Part (A) will consist of 5 problems, worth 10 points (2 points per problem), to be neatly presented and organized. Part (B) will be worth 2 points for the completion of most or all of the suggested practice problems. Turn in Part (A) and Part (B) SEPARATELY, labeling each appropriately. Homework will not be accepted late except for a valid reason (e.g. sick, family emergency, etc.). At the end of the semester the three lowest Part (A) homework scores will be dropped from your grade.

Use an  $8\frac{1}{2} \times 11$  sheet of paper, staple each individual assignment separately in the upper left corner and include your full name, homework number, and instructors name in the upper right hand corner. Use only pencil and be sure all problems are neat and readable even if you must rewrite it. Begin with the original expression/equation from the book and work in a vertical fashion with each step performed on a separate line. Include space between problems and no more than two columns of work on a sheet of paper. Always show equality where appropriate and clearly indicate your answers. Be sure to label answers such that there is sufficient context to explain the answer; a number by itself means nothing. When graphing, use a straight-edge and label your axes and all points of interest.

Heres an example of layout:

Ima Student  
Math 380  
HW 2.2 (A)  
Panza

HW 2.2: 1, 17, 25, 35, 45

1. Solve  $2x - 20 = -12$

$$\begin{aligned} 2x - 20 &= -12 \\ 2x &= 8 \\ x &= 4 \end{aligned}$$

35. Solve  $11x + 10 = 19x + 20$

$$\begin{aligned} 11x + 10 &= 19x + 20 \\ 11x &= 19x + 10 \\ -8x &= 10 \\ x &= -\frac{5}{4} \end{aligned}$$

17. Solve  $\frac{x}{7} - \frac{1}{3} = -\frac{9}{8}$

$$\begin{aligned} \frac{x}{7} - \frac{1}{3} &= -\frac{9}{8} \\ (168)\frac{x}{7} - (168)\frac{1}{3} &= (168)\left(-\frac{9}{8}\right) \\ 24x - 56 &= -189 \\ 24x &= -133 \\ x &= -\frac{133}{24} \end{aligned}$$

45. Solve  $8(5x - 3) - 3(4x + 6) = 4$

$$\begin{aligned} 8(5x - 3) - 3(4x + 6) &= 4 \\ 40x - 24 - 12x - 18 &= 4 \\ 28x - 42 &= 4 \\ 28x &= 46 \\ x &= \frac{23}{14} \end{aligned}$$

25. Solve  $0.3x + 1.7 = 3.05$

$$\begin{aligned} 0.3x + 1.7 &= 3.05 \\ 0.3x &= 1.35 \\ x &= 4.5 \end{aligned}$$

## Quizzes

Each Tuesday and Thursday there will be a short quiz during the first 15 minutes of class. These quizzes will include material covered in class and the textbook from the sections for which you have turned in homework since the previous quiz. Each quiz will be worth 10 points. Be sure to show up on time with a pencil. At the end of the semester the three lowest quiz scores will be dropped from your grade. There are no make-up quizzes and no extra time is allowed; a missed quiz will count as one of your lowest scores and will be dropped.

## Exams

There will be one Midterm (100 points) and a cumulative Final (200 points). The Midterm and Final will be composed of a selection of the quiz questions. All exams are closed book and individual. Be sure to bring a sharp pencil and your calculator. Always clearly rewrite all applicable steps in the space provided on the exam; never refer to scratch paper or backs of pages. There are NO make-ups. In case of a severe conflict, arrangements can be made to take the exam early.

Midterm: Thursday, October 18, 2012, 1:15pm

Final: Wednesday, December 12, 2012, 1:00pm

## Calendar

The course calendar can be viewed online and will be updated regularly. It contains a schedule of what we will cover and all due dates for homework and exams.

## Attendance

Attendance is very important to your overall understanding of the concepts presented in this course. You should attend all class sessions, arriving on time and leaving after the class has ended. I encourage participation and welcome all questions. If you must miss class, check with the calendar and fellow students to see what you missed.

**Important Note:** Anything not done in pencil will not be graded!

## Cheating

Cheating is a very serious offense and is dealt with in a serious way. Don't do it.

## Assistance

If you have a documented disability or believe you could benefit from any of the services offered by Disabled Student Programs & Services (DSP&S), please contact the DSP&S office (Building T20, behind Bookstore) at 476-4280.

## Tutoring

I encourage you all to enroll in MATH 380L for a 1/2 or 1 unit of credit to obtain supplementary help. It is a Credit/No Credit course that will not affect your GPA, but is counted among the 12 unit minimum for financial aid. There is also "GUID-145-E2493 Applied Study Skills & Strategies" for Elementary Algebra which will meet TTh 1 – 2 pm. It is a small group type of tutoring session.

## Other

Please turn off and remove all portable audio systems before entering class. Please be respectful your fellow classmates; refrain from using foul, crude, or disrespectful language in the classroom. This syllabus can be changed by me at any time. Canceled Class Hotline (Math & Science only): (707) 476-4210 #5

## Math 380 Homework Assignments

Section #	Part (A): 10 pts 2 pts for each problem; thorough and neat	Part (B): 2 pts 2 pts for completing most or all; turn in SEPARATELY
1.1	16, 24, 26, 30, 38	5, 7, 15, 17, 23, 25, 27, 29, 31, 35, 37, 41, 43
1.2	14, 22, 24, 38, 44	3, 5, 7, 13, 15, 21, 23, 27, 37, 39, 41, 45, 51, 59, 75
1.3	22, 28, 32, 52, 54	5, 11, 17, 19, 23, 25, 29, 31, 37, 39, 43, 53, 55
1.4	30, 36, 50, 64, 76	11, 19, 23, 35, 37, 43, 49, 51, 55, 63, 75, 77
1.5	16, 24, 30, 42, 60	5, 15, 17, 19, 23, 29, 33, 41, 47, 53, 59, 61
2.1	20, 34, 40, 44, 50	1, 3, 7, 11, 17, 19, 23, 27, 37, 39, 43, 45, 47, 49, 51
2.2	14, 24, 30, 42, 54	1, 9, 13, 19, 23, 27, 31, 41, 43, 51, 53, 55
2.3	8, 12, 18, 24, 30	3, 5, 9, 11, 13, 15, 17, 19, 21, 27, 29, 31
2.4	2, 12, 20, 26, 36	3, 11, 13, 21, 23, 27, 29, 31, 35
2.5	2, 6, 14, 22, 26	1, 5, 7, 13, 15, 21, 25, 31
2.6	26, 34, 48, 56, 70	5, 9, 15, 21, 25, 29, 33, 47, 53, 55, 59, 65, 71, 73, 77
3.1	6, 10, 12, 20, 28	3, 5, 7, 9, 11, 13, 15, 19, 21, 27
3.2	4, 6, 12, 20, 26	3, 5, 11, 15, 17, 23
3.3	2, 6, 10, 18, 22	1, 5, 9, 11, 15, 17, 21, 27
3.4	2, 8, 12, 14, 16	1, 5, 7, 11, 13, 17, 19
3.5	2, 8, 14, 18, 20	1, 3, 7, 9, 13, 15, 19, 21
3.6	10, 12, 20, 24, 28	9, 11, 13, 17, 21, 23, 27, 31, 33
4.1	2, 6, 18, 22, 28	1, 3, 5, 17, 21, 23, 27, 29
4.2	2, 10, 28, 36, 38	1, 5, 7, 9, 11, 27, 33, 35, 39, 41, 45
4.3	4, 10, 22, 26, 34	3, 5, 9, 11, 17, 21, 25, 27, 33, 37, 39
4.4	2, 4, 6, 8, 14	1, 3, 5, 7, 13
5.1	4, 8, 12, 22, 26	1, 5, 7, 9, 11, 15, 19, 21, 23, 27, 35, 39, 41
5.2	14, 18, 26, 50, 60	1, 3, 7, 11, 13, 17, 19, 21, 23, 25, 31, 45, 47, 51, 59, 61
5.3	2, 6, 10, 12, 14	1, 5, 9, 11, 13
5.4	6, 14, 16, 24, 34	5, 7, 9, 13, 15, 17, 23, 25, 31, 33, 35
5.5	6, 14, 36, 46, 52	3, 5, 9, 13, 15, 23, 25, 27, 29, 31, 35, 37, 39, 41, 45, 51, 55
5.6	6, 18, 24, 30, 54	3, 7, 13, 17, 23, 25, 27, 29, 35, 41, 53
5.7	16, 24, 34, 54, 78	3, 9, 13, 17, 23, 25, 33, 35, 53, 57, 77
6.1	36, 52, 60, 62, 72	13, 17, 19, 23, 25, 27, 33, 37, 43, 49, 55, 57, 61, 65, 71, 73
6.2	4, 26, 40, 48, 52	1, 3, 5, 9, 11, 13, 19, 21, 23, 29, 35, 37, 47, 49, 51, 55
6.3	12, 14, 20, 26, 32	1, 5, 7, 11, 15, 17, 19, 23, 25, 27, 31, 33, 37, 41
6.4	12, 18, 24, 28, 34	1, 5, 9, 11, 15, 17, 21, 23, 27, 31, 35, 37, 39, 43

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Math 380 Homework Assignments (cont.)

<b>Section #</b>	<b>Part (A)</b>	<b>Part (B)</b>
6.5	16, 38, 62, 72, 78	1, 5, 9, 19, 25, 31, 33, 39, 47, 57, 61, 67, 71, 73, 75, 81
6.6	6, 22, 28, 42, 54	1, 7, 13, 17, 25, 31, 37, 47, 51, 53, 59
6.7	2, 4, 10, 14, 22	1, 3, 7, 9, 13, 21
7.1	38, 42, 48, 54, 72	3, 7, 9, 13, 21, 23, 29, 31, 33, 35, 39, 41, 45, 51, 57, 61, 67, 71, 73
7.2	10, 18, 22, 26, 50	1, 5, 9, 11, 17, 23, 25, 27, 33, 37, 39, 41, 43, 45, 49
7.3	4, 12, 18, 26, 42	1, 3, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 35, 39, 43
7.4	4, 14, 20, 24, 26	1, 5, 13, 15, 17, 19, 21, 23, 25
7.5	2, 10, 14, 22, 28	1, 9, 11, 13, 19, 21, 27
8.1	2, 14, 28, 32, 40	1, 5, 11, 13, 21, 23, 25, 31, 33, 39
8.2	4, 10, 22, 34, 36	1, 3, 5, 7, 11, 25, 27, 31, 35
8.3	8, 10, 26, 40, 48	1, 5, 7, 9, 11, 15, 17, 19, 23, 25, 29, 41, 47
8.4	6, 12, 20, 28, 34	1, 7, 9, 11, 19, 21, 25, 29, 33