

# MATH 060: ELEMENTARY ALGEBRA/PAL

FALL 2011

**Instructor:** Dr. Ruzanna Baytaryan  
**Office:** HSLH 341      **Phone:** 661-362-5916  
**Office Hours:** TTH 2:30-3:30PM and by appointment  
**Email:** [Ruzanna.baytaryan@canyons.edu](mailto:Ruzanna.baytaryan@canyons.edu)  
**Website:** <http://www.canyons.edu/users/baytaryanr>

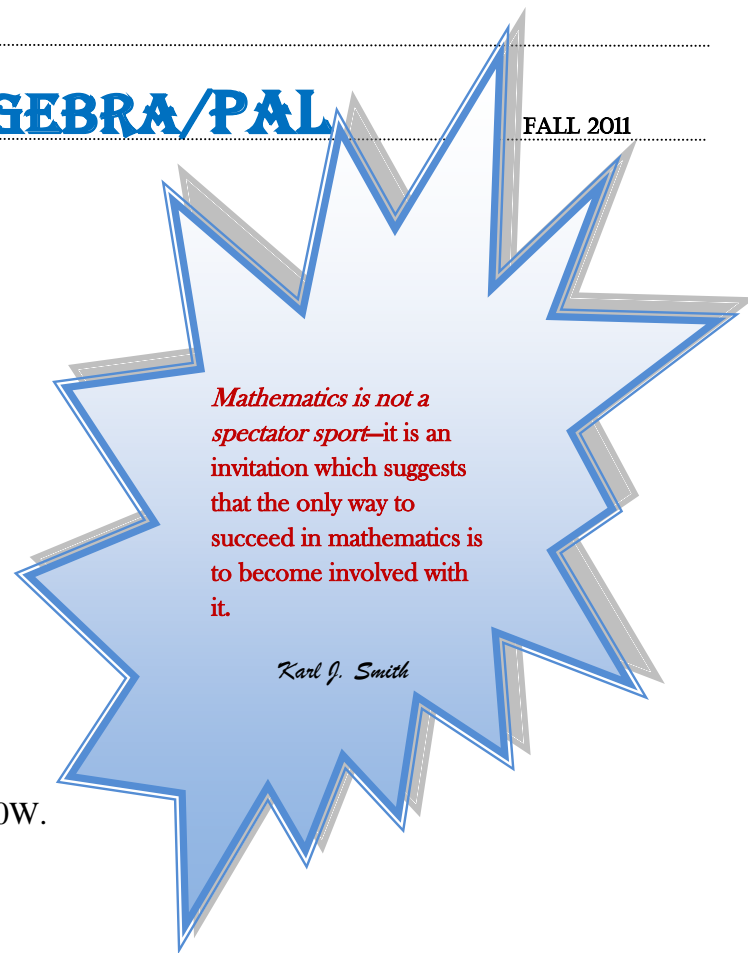
## **Textbook and Supplies**

**Text:** *Elementary and Intermediate Algebra*,  
Sullivan, M. III, Struve, K. R., & Mazzarella, J. (2<sup>nd</sup>.ed)

**Supplies:** You will need a scientific calculator for some homework exercises. You may purchase any inexpensive scientific calculator. Examples: TI-30 versions or Casio fx300W.  
**However, no calculators will be used on tests or final exam.**

## **Course Description**

Designed to develop beginning algebra skills, including the fundamental concepts of operating within the real number system, working with first degree equation in one unknown, identifying and evaluating functions, factoring and multiplication of polynomials, and working with algebraic functions, linear equations and graphs, systems of linear equations, exponents, and radicals, quadratic equations, and applications.



## **Student Learning Outcomes:**

By the completion of the course a student should be able to

**Recognize and interpret equations of lines. Solve systems of linear equations.  
Factor polynomials**

## **Homework Quizzes**

Homework will be assigned at the end of each class period. **It is extremely important to keep up with the assignments.** This is a college class, so you are expected to spend about two hours for each hour in class outside of class working on the course material. Moreover, for more students, there is a direct correlation between the effort made to complete homework assignments and mastery of the material. Motivation, tenacity, and positive attitudes are keys to an individual's success. So, let's succeed!

Homework, however, will not be collected. Instead, random open-note quizzes will be given throughout the semester. The quiz problems will be taken verbatim from previously assigned homework assignments.  
**No makeup quiz will be given under any circumstances.** Your lowest quiz score will be dropped.

## Group- work:

Most days in class you will be assigned to work with a group 2 or 3 other students. Problems will be assigned for -your group to work on. Each group will submit one set of solutions for each assignment.

**No makeup group-work will be given under any circumstances.**

## SIGMA (Supplemental Instruction for Gaining Master in Algebra and Arithmetic)

College of the Canyons is offering a series of skills building workshops (called Supplemental Instruction workshops) to promote student success in courses throughout the college. As part of the requirements for this class, you are required to complete at least 5 activities, approximately one hour each, in the SIGMA - Math Achievement Center. These activities are designed to prepare you for and reinforce the concepts covered in this course. These activities represent 5% of your class grade.

The activities may include:

- Workshops: Interactive mini presentations on key topics related to this course.
- Guided Learning Activities: Independent activities including a one-on-one review and discussion.

**I will specify the workshops that are most relevant to this course and the dates by which they should be completed.**

The activities will be completed in the SIGMA – Math Achievement Center in Bonelli-207. To gain access to SIGMA, please enter through the TLC in Bonelli-209. You will need to take your student ID card (not just the number) or any Photo ID to be logged into the system at the front counter.

To receive credit you must actively participate and understand the concepts being covered. Your worksheet or quiz will be collected at the end of the workshop and will be returned to me.

Check the Skills4Success website at [www.canyons.edu/skills4success](http://www.canyons.edu/skills4success) for the workshop schedule.

## Exams

You will have 5 chapter exams and a comprehensive final exam. **Do not miss them! No makeup test will be given under any circumstances.** If you know in advance that you will miss an exam, then it is possible to arrange to take it in advance, but no exam will be given after the class has taken it. Your lowest test score may be replaced by your final exam score to improve your final grade. I strongly recommend that you keep all quizzes, class-works, and exams until you receive your course grade in case you have questions regarding your grade.

## Grading

Your final grade will be computed from your quizzes, chapter tests, and your final exam scores. Any missing exam will be scored zero. The following grade-calculation grid will be used to determine your final grade.

	Grade Percentage		Weight		Total
Homework (Quizzes) and Class-work Average		X	10% (0.10)	=	
SIGMA workshops/GLA		X	5% (0.05)		
Chapter Exam Average		X	60% (0.60)	=	
Final Exam		X	25% (0.25)	=	
Overall grade percentage in class					

**Grading Scale:**

A = 90 – 100%

C = 70 – 79%

F = Below 60%

B = 80 – 89%

D = 60 – 69%

*A grade C or higher is required in order to continue with Math 083 and/or Math 070.*

**Attendance**

We have a lot of material to cover and understand, so regular attendance is crucial to your success in the class. Please come on time and stay for the duration of the class. If you cannot attend regularly, on time, and stay for the entire class, you should take this class at another time that fits your schedule. Students arriving late or leaving early, without authorization from the instructor, may be marked tardy. Two recorded tardies will count as one absence. Excessive absences (2 or more) may result in being dropped from the class.

**Expectations**

A collaborative and respectful environment is anticipated. I expect you to come to class with a commitment to learn and to take responsibility for your learning. This means participating in the discussions and in-group work, taking notes, and helping others to learn. Please ask questions and let me know if you have difficulties. If you feel you may need an accommodation based on the impact of a disability, please contact me privately to discuss your specific needs. You will be asked to leave if you engage in any inappropriate behavior during class. Cell phones are to be turned off during class. Neither food nor drinks are allowed in the classroom with the exception of bottled water.

**Academic Assistance**

You should visit your TLC lab. Tutors and instructors are waiting there, eager to help you. The computer software that accompanies your text is available there. It is free.

# **MATH 060 PAL LECTURE OUTLINE**

## **FALL 2011**

This schedule is tentative. It is subject to change.

Week 1	<b>08/22/11</b> Introduction; Pretest 2.2	<b>08/23/11</b> 2.3, 2.4	<b>08/24/11</b> 2.5, 2.6	<b>08/25/11</b> 2.6, 2.7
Week 2	<b>08/29/11</b> 2.7, 2.8	<b>08/30/11</b> 3.1, 3.2, 3.3	<b>08/31/109</b> <b>Review:</b> <b>Test-1 (2.1-2.8)</b>	<b>09/01/11</b> 3.4, 3.5
Week 3	<b>09/05/11</b> <b>LABOR DAY</b>	<b>09/06/11</b> 3.6, 4.1	<b>09/07/11</b> 4.2, 4.3	<b>09/08/11</b> 4.4
Week 4	<b>09/12/11</b> 4.5	<b>09/13/11</b> <b>Review:</b> <b>Test-2 (3.1-3.7, 4.1-4.5)</b>	<b>09/14/11</b> 5.1, 5.2	<b>09/15/11</b> 5.3, 5.4
Week 5	<b>09/19/11</b> 5.5, 5.6	<b>09/20/11</b> 6.1, 6.2	<b>09/21/11</b> <b>Review:</b> <b>Test-3 (5.1-5.6)</b>	<b>09/22/11</b> 6.3, 6.4
Week 6	<b>09/26/11</b> 6.5	<b>09/27/11</b> 6.6, 6.7	<b>09/28/11</b> 7.1, 7.2	<b>09/29/11</b> <b>Review:</b> <b>Test-4 (6.1-6.7)</b>
Week 7	<b>10/03/11</b> 7.3, 7.4	<b>10/04/11</b> 7.5	<b>10/05/11</b> 7.6, 7.7	<b>10/06/11</b> 7.8
Week 8	<b>10/10/11</b> <b>Review:</b> <b>Test-5 (7.1-7.8)</b>	<b>10/11/11</b>	<b>10/12/11</b> <b>REVIEW FOR FINAL</b>	<b>10/13/11</b> <b>FINAL EXAM</b>

**MATH 060 HOMEWORK: FALL 2011*****Chapter-1: Operations on Real Numbers and Algebraic Expression*****Review Problems (Optional)****Pg. 76 1-209 eoo (every other odd)****Read 1.1 Success in Mathematics*****Chapter-2: Equations and Inequalities in One Variable*****2.1 Linear Equations: The Addition and Multiplication Properties of Equality (Optional)****1, 15, 20, 20, 27-107eoo , 111-122all****2.2 Linear Equations: Using the Properties Together (Optional)****1, 17, 21-81eoo, 85, 91, 93, 95-98all****2.3 Solving Linear Equations Involving Fractions and Decimals; Classifying Equations****1, 4, 7, 10, 15, 20, 21, 27-99eoo, 105-117 odd, 119-122all****2.4 Evaluating Formulas and Solving for a Variable****1, 6, 9, 13, 15, 23-91eoo, 97-102all****2.5 Introduction to Problems Solving: Direct Translation Problems****13, 27-91odd, 93-96all****2.6 Problem Solving: Direct Translation Problems Involving Percent****1, 2, 21-69 odd, 70-72all****2.7 Problem Solving: Geometry and Uniform Motion****1, 4, 6, 7, 10, 13-53odd, 55-57all****2.8 Solving Linear Inequalities in One Variable****1, 6, 7, 12, 13, 18, 19, 37-113eoo, 117-133odd, 135-138*****Chapter-3: Introduction to Graphing and Equations of Lines*****3.1 The Rectangular Coordinate System and Equations in Two Variables****1, 2, 3, 4, 8, 21, 27, 29, 33, 35, 37, 43, 55, 57, 59, 65, 73, 75, 77, 85****3.2 Graphing Equations in Two Variables****3, 10, 13, 23-123eoo, 125, 127, 129-132all****3.3 Slope****1, 2, 3, 4, 7, 13-73eoo, 75-83odd, 87, 88****3.4 Slope-Intercept Form of a Line****21-89eoo, 91, 93, 95, 97, 99, 103, 104****3.5 Point-Slope Form of a Line****1, 2, 11, 13-69 eoo , 71-85 odd, 87, 88****3.6 Parallel and Perpendicular Lines****1, 9, 29-89 eoo, 91-103odd, 105, 106*****Chapter-4: Systems of Linear Equations and Inequalities*****4.1 Solving Systems of Linear Equations by Graphing****1, 2, 9, 10, 11, 12, 17-81odd, 89, 90****4.2 Solving Systems of Linear Equations Using Substitution****1, 6, 7, 8, 13-53odd, 61-65odd, 67, 68****4.3 Solving Systems of Linear Equations Using Elimination****1, 6, 11-71odd, 77, 79, 81-84all****4.4 Solving Direct Translation, Geometry, and Uniform Motion Problems Using Systems of Linear Equations****3, 4, 7, 9-41odd, 42****4.5 Solving Mixture Problems Using Systems of Linear Equations****1, 4, 5, 9-47odd, 48**

*Chapter-5: Exponents and Polynomials*

5.1 Adding and Subtracting Polynomials	1, 2, 7, 11, 12, 17, 29-55odd, 57-129 eoo, 131-137odd, 138, 139
5.2 Multiplying Polynomials: The Product and Power Rules	1, 2, 3, 12, 19-97odd, 99-104all
5.3 Multiplying Polynomials	35-135eoo,137-151odd, 153-156all
5.4 Dividing Monomials: The Quotient Rule and Integer Exponents	1, 2, 6, 9, 10, 11, 12, 29-141eoo, 145-151all
5.5 Dividing Polynomials	1, 5, 6, 13-89eoo, 93, 95, 96
5.6 Applying Exponent Rules: Scientific Notation	1, 2, 3, 10, 11, 27-103 eoo, 105-110all

*Chapter-6: Factoring Polynomials*

6.1 Greatest Common Factor and Factoring by Grouping	1, 2, 11, 12, 19, 27-119odd, 121-124all
6.2 Factoring Trinomials of the Form $x^2 + bx + c$	1, 2, 6, 16, 21-103odd, 105, 106
6.3 Factoring Trinomials of the Form $ax^2 + bx + c$ ; $a \neq 1$	1, 8, 11, 14, 17, 18, 23-105odd, 107, 108
6.4 Factoring Special Products	1, 2, 9, 12, 13, 17, 20, 23, 24, 29-105odd, 107-110all
6.5 Summary of Factoring Techniques	1, 10, 13, 14, 19-101odd, 103, 104
6.6 Solving Polynomial Equations by Factoring	1, 4, 5, 6, 13, 20, 23-109eoo, 111-116all
6.7 Modeling and Solving Problems with Quadratic Equations	7-43odd, 44

*Chapter-7: Rational Expressions and Equations*

7.1 Simplifying Rational Expressions	1, 6, 10, 11, 25-93odd, 94
7.2 Multiplying and Dividing Rational Expressions	1, 2, 5, 15-87eood, 89-92all
7.3 Adding and Subtracting Rational Expressions with Common Denominator	1, 2, 12, 17-93eoo, 95-100all
7.4 Finding the Least Common Denominator and Forming Equivalent Rational Expressions	1, 2, 5, 9, 13-57eoo, 65-69odd, 71, 72
7.5 Adding and Subtracting Rational Expressions with Unlike Denominators	1, 4, 5, 16, 21-97 eoo, 99-102all
7.6 Complex Rational Expressions	1, 2, 5, 11-63 eoo, 67-70all
7.7 Rational Equations	1, 7, 15-83odd, 89-91all
7.8 Models Involving Rational Equations	1, 6, 13-85eoo, 87-90all