Los Angeles Mission College  
Syllabus for Math 112  
Fall’ 2008  

Course: Prealgebra  
Ticket Number: 3069  
Evening Class: Tuesday 7:00-10:10 PM at BUNG-7  

Instructor: Stepan Zargaryan  
Office Hours: T 4:00PM-4:15PM; Th7:00-8:20PM at Mat Lab  
Phone: (818)364-7600, ext. 4257  
E-mail: stzarg@charter.net  

Text: Prealgebra  
By Alan S. Tussy, R. David Gustafson 2nd ed.  

Important Dates: Last day to drop classes, without a “W” (no refund): September 26, 2008;  
Last day to drop a class with a “W” (in person) November 23, 2007  

Course Outline:  

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics to be Covered/Events</th>
<th>Sections from Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/02</td>
<td>1. Whole Numbers</td>
<td>Chapter 1:</td>
</tr>
<tr>
<td></td>
<td>Adding and Subtracting, Multiplying and Dividing</td>
<td>All 7 Sections</td>
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<tr>
<td>9/09</td>
<td>Estimation, Prime Factors and Exponent</td>
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<tr>
<td></td>
<td>Order of Operations, Solving Equations by Addition and Subtraction, and by Division and Multiplication</td>
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<tr>
<td>9/16</td>
<td>2. The Integers</td>
<td>Chapter 2:</td>
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<tr>
<td></td>
<td>Addition, Subtraction, Multiplication and Division of Integers. Order of Operations and Estimation, Solving Equations Involving Integers. Test #1.</td>
<td>All 7 Sections</td>
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<tr>
<td>9/23</td>
<td>3. The Language of Algebra</td>
<td>Chapter 3:</td>
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<tr>
<td></td>
<td>Variables and Algebraic Expressions, Evaluating, Algebraic Expressions and the Distributive Property, Combining Like Terms, Simplifying Expressions to Solve Equations, Problem Solving. Test #2</td>
<td>All 6 Sections</td>
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<tr>
<td>9/30</td>
<td>4. Fractions and Mixed Numbers</td>
<td>Chapter 4</td>
</tr>
<tr>
<td></td>
<td>The Fundamental Property of Fractions, Multiplying Fractions, Dividing Fractions, Adding and Subtracting Fractions</td>
<td>All 8 Sections</td>
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<tr>
<td>10/07</td>
<td>The LCM and the GCF</td>
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|       | Multiplying and Dividing Mixed Numbers, Adding and Subtracting Mixed Numbers, Order of Operations and Complex Fractions, Solving Equations Containing Fractions: Test #3.
5. **Decimals**
   Chapter 5
   An Introduction to Decimals
   Addition and Subtraction with Decimals
   Multiplication with Decimals
   Division with Decimals
   Estimation
   Fractions and Decimals
   Solving Equations Containing Decimals
   **Square Roots. Test #4**

6. **Graphing Exponents and Polynomials**
   Chapter 6
   The Rectangular Coordinate System
   **Graphing Linear Equations**
   Multiplication Rules for Exponents
   Introduction to Polynomials
   Adding and Subtraction Polynomials
   Multiplying Polynomials **Test #5.**

7. **Percent**
   Chapter 7
   Percents, Decimals, and Fractions
   Solving Percent Problems
   11/04 Applications of Percent
   Estimation
   Interest

8. **Ratio, Proportion, and Measurement**
   Ratio
   Proportions
   **American Units of Measurement**
   Converting between American and Metric Units. **Test #6.**

9. **Introduction to Geometry**
   Chapter 9
   Some Basic Definitions
   Parallel and Perpendicular Lines
   Polygons
   Properties of Triangles
   Perimeters and Areas of Polygons
   Surface Area and Volume.
   **Review.**

12/16/2008 Final Exam  8:00p.m.-10p.m.

**Note:** Topics in bold face are considered extremely important to
the curriculum and should be emphasized accordingly.

**Tests:** The tests are generally closed book, and require students to
demonstrate problem solving skills by showing work for the
problems. **No Test Make-ups.**

**Grading** a) Homework 10%, b) Tests 60%, d) Final test 30%.
**Policy**  A: 89-100%;  B: 79-88%;  C 66-78%;  D: 55-65%; fbelow 55.
Specific Department Guidelines for Math 112:

It is expected that the students have an introduction to calculators at some point after Chapter 4. However, on all exams and work pertaining to Chapters 1-4, students must demonstrate their ability to perform fundamental calculations without the calculator.

Additional support material for this course includes: software based tutorials, topic specific video presentations, and tutoring, available at the Mathematics Lab in the Library.

For questions regarding the support material or any of the guidelines presented here, please contact: Leslie Foster (818)364-7703; email: fosterll@laccd.edu

Math112 Learning Outcomes

1) Find the prime factorization of a given number.
2) Evaluate expressions using order of operations.
3) Simplify expressions with exponents.
4) Solve equations with whole numbers and integers.
5) Combine like-terms.
6) Analyze word problem, translate into linear equations and solve.
7) Evaluate expressions with fractions and mixed numbers, including order of operations and complex fractions.
8) Evaluate expressions with decimals and square roots.
9) Analyze and graph linear equations.
10) Convert numbers to percents and evaluate applications such as discounts, interests, commissions, etc.
11) Solve ratios and proportions, translate and solve word problems thereof.
12) Calculate perimeters and areas of polygons.
13) Distinguish between complementary angles as well as acute, right, obtuse, and straight angles.