

**IMPERIAL COMMUNITY COLLEGE DISTRICT
IMPERIAL VALLEY COLLEGE**

COURSE OUTLINE

DIVISION: Science, Mathematics and Engineering

DATE: September 2006

COURSE TITLE: Basic Mathematics

COURSE NO.: MATH 070

UNITS: 3

LEC HRS. 3 **LAB HRS.** _____ **HRS. TBA**

If cross-referenced, please complete the following

COURSE NO.(s) _____ **COURSE TITLE**

I. COURSE/CATALOG DESCRIPTION:

Brief review of arithmetic including fractions, decimals, percent, square root, and an introduction to algebra.

II. A. PREREQUISITES, if any:

B. COREQUISITES, if any:

C. RECOMMENDED PREPARATION, if any:

III. GRADING CRITERIA:

 X Course must be taken on a "letter-grade" basis only.

_____ Course may be taken on a "credit" basis or for a letter grade.

_____ Course must be taken on a "credit" basis only.

IV. MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

1. The student will demonstrate skills in working with whole numbers.
2. The student will demonstrate an understanding and comprehension of basic ideas and elementary concepts of fractional numbers.
3. The student will demonstrate an understanding and a working knowledge of decimal numbers.
4. The student will identify the importance of the concepts of ratio and proportion as they apply to everyday problems.
5. The student will demonstrate proficiency in problem solving when dealing with standard type applications of percent.
6. The student will demonstrate a broad understanding of the English and Metric systems in a wide variety of applications.
7. The student will be able to apply relevant formulas in application problems involving a variety of geometric figures.
8. The student will demonstrate their knowledge of introductory algebra essential to further studies of the subject.

V. CORE CONTENT TO BE COVERED IN ALL SECTIONS:

<u>CORE CONTENT</u>	<u>APPROX. % OF COURSE</u>
1. Whole numbers A. Place value B. Addition and subtraction C. Multiplication and division D. Rounding E. Exponents and square roots F. Applications	10%
2. Fractional numbers A. Prime factorization B. GCF and LCM C. Mixed and improper fractions D. Simplifying fractions E. Addition and subtraction F. Multiplication and division G. Applications	15%
3. Decimals A. Place value B. Rounding C. Addition and subtraction D. Multiplication and division E. Converting fractions and decimals F. Applications	15%
4. Ratio and proportion A. Ratios and rates B. Solving proportions C. Applications	15%
5. Percent A. Conversions (percent, fractions, decimals) B. Percent increase and decrease C. Applications of percent	15%
6. Measurement and Conversions (English and Metric systems) A. Length B. Weight C. Capacity D. Temperature E. Applications	10%
7. Geometric measurements A. Perimeter B. Area C. Volume D. Applications	10%
8. Introduction to Algebra A. Order of operations B. Operations on signed numbers C. Evaluating variable expressions D. Simplifying variable expressions E. Rational and Irrational Numbers	10%

VI. METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS: (check all that apply)

Essay	<u> X </u>	Class Activity	<u> X </u>	Written Assignments	<u> X </u>
Problem Solving Exercise	<u> X </u>	Final Exam	<u> X </u>	Oral Assignments	<u> X </u>
Skill Demonstration	<u> X </u>	Objective	<u> X </u>	Quizzes	<u> X </u>
Other	<u> X </u>				

VII. INSTRUCTIONAL METHODOLOGY: (Check all that apply)

Lecture	<u> X </u>	Discussion	<u> X </u>	Demonstration	<u> X </u>
Audio Visual	<u> X </u>	Group Activity	<u> X </u>	Lab Activity	<u> X </u>
Computer Assisted Instruction	<u> X </u>	Individual Simulation/ Assistance	<u> X </u>	Case Study	<u> X </u>
On-Line	<u> X </u>				

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit. _____

VIII. TEXTBOOK(S) AND SUPPLEMENT(S):

Bittinger and Penna. *Basic Mathematics with Early Integers*. Addison Wesley Publishers, 2007.

Hutchison, Baratto, and Bergman. *Basic Mathematical Skills with Geometry*. 7th Edition. McGraw-Hill Publishers, 2008.

Martin-Gay. *Basic College Mathematics*. 3rd Edition. Prentice Hall Publishers, 2006.