

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

MATH 216 - Basic Math

3 Unit(s)

Prerequisite(s): Math Level I

Recommended Prep: Reading Level II

Transfer Status: NT

51 hours Lecture

This course is designed to review operations of whole numbers and to develop concept and computational skills with fractions, decimals, percents, prime factoring, exponents, limited use of calculators, measurement, area, perimeter, and basic statistics.

II. OBJECTIVES

Upon successful completion of this course, the student will be able to:

- A. Perform the four basic arithmetic operations on whole numbers, fractions and decimals.
- B. Use a calculator to solve applications.
- C. Solve problems with exponents.
- D. Solve problems involving percent.
- E. Factor a given composite number into prime factors.
- F. Solve simple equations.
- G. Use proper form in writing mathematical statements.
- H. Find the mean, median and mode for a set of data.
- I. Read graphs.
- J. Find the perimeter and area of geometric shapes.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lecture

<u>Topics</u>	<u>Hours</u>
1. Whole numbers	5.00
2. Fractions	12.00
3. Decimals	8.00
4. Ratio and proportions	6.00
5. Percents	8.00
6. Measurement and Geometry	8.00
7. Statistics (Reading Graphs, Mean, Median, Mode)	4.00
Total Hours	51.00

IV. METHODS OF INSTRUCTION

- A. Lecture
- B. Collaborative Group Work
- C. Class Activities
- D. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- E. Discussion
- F. Multimedia Presentations

G. Board Work

V. **METHODS OF EVALUATION**

- A. Exams/Tests
- B. Quizzes
- C. Homework
- D. Final Examination
- E. Written Examinations

VI. **EXAMPLES OF ASSIGNMENTS**

A. Reading Assignments

1. Read the section in the textbook on ratios and be able to describe how to write a ratio in three forms.
2. Read the section in the textbook on whole numbers and be able to define whole numbers and place whole numbers on a number line.

B. Writing Assignments

1. Write in words the process for finding a common denominator. Assume you are teaching it to someone for the first time and write a detailed description.
2. After finding the mean, median and mode for a set of data, choose the measure of central tendency you think is most representative and write a sentence supporting your selection.

C. Out-of-Class Assignments

1. In your textbook, review the section on division of fractions and solve the problems in the exercise set assigned by the instructor.
2. Review your ALEKS pie online and complete the problems from the two next sections.

VII. **RECOMMENDED MATERIALS OF INSTRUCTION**

Textbooks:

- A. Miller, O'Neill & Hyde. Basic College Mathematics. 3rd Edition. McGraw Hill, 2015.

Materials Other Than Textbooks:

- A. ALEKS computer program

Created/Revised by: Phoebe Hartt

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