

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

OLS 326 - Mathematics within Industry

0 Unit(s)

Prerequisite(s): OLS 323

Recommended Prep: NONE

Transfer Status: NT

85 hours Lab

This course prepares students for mathematical concepts encountered in various trades. These concepts include, but are not limited to, money skills, measurements, temperatures, computing taxes, decimals, and estimating dollar amounts and volume of materials needed to complete a task. Unlimited repeats. Satisfactory/Unsatisfactory Only. Open Entry/Open Exit.

II. OBJECTIVES

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

- A. Read a thermometer accurately for specific purposes such as food preparation or greenhouse operations.
- B. Accurately measure food items.
- C. Calculate decimal equations correctly.
- D. Compute taxes on a purchase.
- E. Estimate cubic yards of cement for a given floor space.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lab	
<u>Topics</u>	<u>Hours</u>
1. Reading/comparing food weights	5.00
2. Measuring food weights	5.00
3. Calculating fractional measurements	5.00
4. Identifying/using cooking measurements	5.00
5. Adding/subtracting inches, feet, yards	5.00
6. Multiplying inches, feet, yards	5.00
7. Dividing inches, feet, yards	5.00
8. Computing sales tax	5.00
9. Making change/calculating multiple sales	5.00
10. Sales receipts/purchase orders	5.00
11. Understanding temperature readings	5.00
12. Temperature readings for food preparation/cooking	5.00
13. Climate and plant growth	5.00
14. Practical applications of decimals for sales, measurements, weights	5.00
15. Calculating decimals - adding, subtracting, multiplying, dividing	5.00
16. Greenhouse controlled climate	5.00
17. Methods for controlled greenhouse climate	5.00
Total Hours	85.00

IV. METHODS OF INSTRUCTION

- A. Group Discussions
- B. Collaborative Group Work
- C. Class Activities
- D. Demonstrations
- E. One to one instruction

V. METHODS OF EVALUATION

- A. Quizzes
- B. Demonstration
- C. Class participation
- D. Written Assignments

VI. EXAMPLES OF ASSIGNMENTS

- A. Reading Assignments
 - 1. Read an article about an occupation that requires the use of measurements. Share with the class what the occupation is and what types of measurements are used.
 - 2. Read weights of various amounts of food and develop a diet plan for a weeks worth of meals. Share your plan with the class.
- B. Writing Assignments
 - 1. Given a shopping scenario, calculate the total cost and make change for a purchase. The instructor will check your work.
 - 2. Make a list of monthly bills and create an annual budget that will reflect a spending allowance. Submit the plan to the instructor.
- C. Out-of-Class Assignments
 - 1. Not applicable.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Textbooks:

- A. Horton, R., Miller, M. Money: Cashier. 1st Edition. Grass Roots Press, 2011.
- B. Horton, R., Miller, M. Measurement: Carpenter. 1st Edition. Grass Roots Press, 2011.
- C. New Readers Press. Breakthrough to Math. 1st Edition. New Readers Press, 2011.
- D. NASCO. Greenhouse Management Series: Introduction to Greenhouse Management. DVD Edition. Product # C29095N, 1991.

Materials Other Than Textbooks:

- A. Supplemental and industry specific material assigned by instructor
- B. Online resources

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