Contra Costa County Consortium
Recommended Workplace Math Course Outline for Adult Learners

School Name
School District
Program Name

Course of Study

A22 Course Code: 2400 General Mathematics
CB21 Code: 1 & 2 levels below transfer
District Course Code:

COURSE OUTLINE

Program:	High School Diploma and College ABE Math
Course Title:	Workplace Math
Date Submitted:	June 6, 2017
Credits:	Ten Credits. This course fulfills one year of the math requirement for high school diploma.
Submitted by:	AEBG Workgroup

I. BRIEF COURSE DESCRIPTION:

This course is designed specifically for adult learners who are seeking a high school diploma or are preparing to enter career training programs. This course focuses on the math skills needed for the workplace with contextualization to the Business Information Worker, Healthcare and Industrialized Construction Career Pathways.

II. GOALS AND PURPOSES:

This course is designed to meet the School-wide Goals of (insert school district or college name) in teaching students to (1) use critical thinking and problem solving skills, (2) learn general math skills needed in the Business Information Worker, Healthcare and Industrial Trades Career Pathways (3) accelerate learning through contextualized curriculum.

III. PERFORMANCE OBJECTIVES: Upon successful completion of this course, student will be able to:

3.1 Number Sense

3.1.1   Read and calculate linear measurements including metrics

3.1.2   Calculate surface area, area, perimeter and volume using whole numbers

3.1.3   Estimate and round off numbers to calculate materials for construction

3.1.4   Solve problems using a scientific calculator

3.1.5   Record scientific notation using exponents

3.2   Fractions – Basic Operations, Measurement, Probability

    3.3.1   Perform basic mathematical operations using fractions

    3.3.2   Calculate measurements using fractions

    3.3.3   Apply geometric applications (area, surface area, perimeter, volume) using fractions

    3.3.4   Compute probability

3.3   Decimals – Basic Operations, Financial Vocabulary, Measurement, and the Metric System

    3.3.1   Perform basic mathematical operations using decimals

    3.3.2   Complete a payroll register and account balance sheet

    3.3.3   Create a business budget using a simple Microsoft Excel spreadsheet

    3.3.4   Define and apply financial terminology

    3.3.5   Calculate measurements in decimal form using the metric system

    3.3.6   Apply geometric applications (area, surface area, perimeter, volume) using decimals

    3.3.7   Compute mean, median and mode

3.4   Ratios and Proportions – conversions, metric system, unit cost

    3.4.1   Determine ratios when calculating medication dosage

    3.4.2   Calculate conversions into metrics including temperature, height and weight

    3.4.3   Compute unit cost

    3.4.4   Compute actual size from scale drawings

    3.4.5   Solve problems using an online conversion calculator

3.5   Percent – discounts, interest rate and commissions

    3.5.1   Calculate commissions, discounts and interest

    3.5.2   Compute percent increase or decrease

    3.5.3   Determine rate of return on investments

    3.5.4   Compute mark up prices

3.6   Data Analysis and Interpretation of Graphs

    3.6.1   Analyze and interpret graphs

    3.6.2   Make predictions based on trends in data

3.6.3   Utilize simple and compound interest table

3.7   **Angles**

3.7.1   measure angles and determine grade of elevation

3.8   **Integers**

3.8.1   Perform basic operations using positive and negative integers

3.8.2   Calculate change in financial indexes, temperatures, BMI, using integers

3.9   **Coordinate Planes and Slope**

3.9.1   Graph points on a regular coordinate plane

3.9.2   Calculate slope, elevation, roof pitch and rate of change

3.9.3   Identify x and y intercepts and graph functions

3.10   **Solving Linear Equations**

3.10.1 Solve problems using linear equations

3.10.2 Change word problems into linear equations

3.10.3 Solve using Pythagorean Theorem

IV.   **METHOD OF EVALUATION:** (Observation, Student Participation, etc.)

Evaluation procedures

The teacher of record will review and evaluate assignments as they are turned in.

90% - 100% A; 80-89% = B;   70-79% = C; 60-69% = D; 59 or below = Redo.

Evaluation Formats to be used. Put in those that you will use in teaching this course.

☐ Class discussion	☐ Portfolio
☐ Completion of assignment	☐ Pre-test and post-test
☐ Completion of project	☐ Rubric based assessment
☐ Critique	☐ Self-evaluation
☐ Vocabulary quizzes and test	☐ Teacher observation
☐ Oral exam	☐ Textbook test
☐ Performance-based assessments	☐ Research Reports

V. CONDITIONS FOR REPETITION:
This course may not be repeated for additional credit.

VI. METHOD OF INSTRUCTION: (Lecture, Discussion, Demonstration, etc.)

Instructional strategies

Select all that will be used in this course

☐ Apply comprehension strategies	☐ Multimedia activity
☐ Case studies	☐ On-the-job training
☐ Computer simulations	☐ Pair work
☐ Critical thinking exercises	☐ Panels of experts
☐ Dialogue journals	☐ Peer teaching
☐ Discussion groups	☐ Project based learning
☐ Distance learning	☐ Simulation exercises
☐ Email assignments to teacher	☐ Small group work
☐ Field observations	☐ Student panels
☐ Field trips	☐ Whole group instruction
☐ Guest speakers	☐ Write arguments and analysis
☐ Hands-on demonstrations	☐ Write a workplace proposal
☐ In-basket exercises	
☐ Independent study	
☐ Information gap	
☐ Jigsaw exercise	

VII. INSTRUCTIONAL UNITS:

3.1 Number Sense
3.2 Fractions – Basic Operations, Measurement, Probability
3.3 Decimals – Basic Operations, Financial Vocabulary, Measurement, and the Metric System
3.4 Ratios and Proportions – conversions, metric system, unit cost
3.5 Percent – discounts, interest rate and commissions
3.6 Data Analysis and Interpretation of Graphs
3.7 Angles
3.8 Integers
3.9 Coordinate Planes and Slope
3.10 Solving Linear Equations

AEBG ABE Workgroup Committee Members:

Alter, Alanna	Acalanes Adult Education
Armand, Alison	Martinez Adult Education
Berner, Jason	Contra Costa Community College
Filner, Diana	Contra Costa County Office of Education
Freidenreich, Jenny	Diablo Valley College
Giurdano, Trudie	Contra Costa County AEBG Consortium
Gomez, Concha	Diablo Valley College
Hobbs, JoAnn	Los Medanos Community College
Imperial , Nora	Mt. Diablo Adult Education
Jenkins, Lynette	Mt. Diablo Adult Education
Lockwood, Danny	Pittsburg Adult Education
Norris, Michael	Los Medanos Community College
Ouellette, Tricia	Mt. Diablo Adult Education
Partain, Marianne	Liberty Adult Education
Paynton Silveira, Tiffany	Mt. Diablo Adult Education
Pekedis, Connie	West Contra Costa Adult Education
Persaud, Angela	Martinez Adult Education
Pfotzer, Lee Ann	Antioch Adult Education
Riley, Edward	Liberty Adult Education
Ring, Rebecca	Pittsburg Adult Education
Roselin, Jonathan	Mt. Diablo Adult Education
Usunov, Jordan	Pittsburg Adult Education
Williams, David	Pittsburg Adult Education