

WTCS Repository

10-804-123 Math with Business Apps

Course Outcome Summary

Course Information

Description	This course integrates algebraic concepts, proportions, percents, simple interest, compound interest, annuities, and basic statistics with business/consumer scenarios. It also applies math concepts to the purchasing/buying and selling processes.
Total Credits	3.00

Pre/Corequisites

Prerequisite Each Wisconsin Technical College determines the General Education course prerequisites used by their academic institution. If prerequisites for a course are determined to be appropriate, the final Course Outcome Summary must identify the prerequisites approved for use by the individual Technical College.

Course Competencies

1 Solve scenarios using basic math computations

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

you use real numbers and basic operations to solve business/consumer problems
you answer with the precision of terms appropriate to the problem
you answer in the correct units of measure and labels

2 Solve scenarios using algebraic concepts

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

you identify the unknown with the appropriate variable
you write the equation that relates the known information with the appropriate variable
you evaluate formulas for given value of the variables
you use algebra to solve business/consumer scenarios
you perform basic operations with signed numbers
you employ the order of operations to simplify an expression
you rearrange formulas to solve for a specific variable
you solve linear equations

you solve proportions
you answer with the precision of terms appropriate to the problem
you answer in the correct units of measure and labels

3 Solve percentage scenarios

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

you convert between percents, decimals, fractions
you identify the base, rate and amount in problem
you compute the base, rate, or amount
you use percentages to solve business/consumer scenarios
you solve percent increase/decrease scenarios
you answer with the precision of terms appropriate to the problem
you answer in the correct units of measure and labels

4 Solve simple interest scenarios

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

you identify the characteristics of simple interest
you compute principal, rate, or time using simple interest formula
you determine due date of a promissory note
you compute maturity value, principal, rate, and time using maturity value formula
you determine present and future values
you use simple interest to solve business/consumer scenarios
you answer with the precision of terms appropriate to the problem
you answer in the correct units of measure and labels

5 Solve compound interest scenarios

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

you identify the characteristics of compound interest
you differentiate between simple and compound interest
you determine the number of periods
you determine the rate per period
you compute compound interest and compound amount
you determine present and future values
you use compound interest formulas to solve business/consumer scenarios
you determine the effective rate of interest
you answer with the precision of terms appropriate to the problem
you answer in the correct units of measure and labels

6 Solve annuity scenarios

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

- you identify the characteristics of an annuity
- you differentiate between the present and future value of an annuity
- you calculate the amount of a sinking fund payment.
- you calculate the present and/or future values of an annuity
- you apply annuity calculations to business/consumer scenarios
- you answer with the precision of terms appropriate to the problem
- you answer in the correct units of measure and labels

7 Apply math concepts to the purchasing/buying process

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

- you calculate trade discounts
- you calculate net cost
- you differentiate between single and series discounts
- you express a series discount as a single discount equivalent
- you determine cash discount period
- you compute a cash discount
- you solve business/consumer scenarios involving the purchasing/buying process
- you answer in the correct units of measure and labels
- you answer with the precision of terms appropriate to the problem

8 Apply math concepts to the selling process

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

- you distinguish between markup based on cost and markup based on selling price
- you compute selling price, cost or markup based on cost
- you compute selling price, cost or markup based on selling price
- you compute sale price, markdown, or original price
- you solve business/consumer scenarios involving the selling process
- you answer in the correct units of measure and labels
- you answer with the precision of terms appropriate to the problem

9 Interpret basic statistics

Assessment Strategies

Math Assessment with Consumer/Business Applications

Criteria

Your performance will be successful when:

- you interpret charted data
- you construct charts/graphs
- you determine the appropriate chart given the raw data
- you calculate measures of central tendencies
- you interpret measures of dispersion
- you determine the probability of an event involving normally distributed data
- you use statistics to solve business/consumer scenarios
- you answer with the precision of terms appropriate to the problem
- you answer in the correct units of measure and labels