

## WTCS Repository

10-804-123 Math with Business Apps

# Course Outcome Summary

### Course Information

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|  | 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 |

Target Population

Business Occupations and other associate degree students

Pre/Corequisites

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| --- | --- |
| 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

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| 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 |