
## 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 problemsyou answer with the precision of terms appropriate to the problemyou 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 variableyou write the equation that relates the known information with the appropriate variableyou evaluate formulas for given value of the variables you use algebra to solve business/consumer scenariosyou perform basic operations with signed numbers you employ the order of operations to simplify an expression you rearrange formulas to solve for a specific variableyou solve linear equationsyou solve proportionsyou answer with the precision of terms appropriate to the problemyou 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, fractionsyou identify the base, rate and amount in problemyou compute the base, rate, or amountyou use percentages to solve business/consumer scenariosyou solve percent increase/decrease scenariosyou answer with the precision of terms appropriate to the problemyou 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 interestyou compute principal, rate, or time using simple interest formulayou determine due date of a promissory noteyou compute maturity value, principal, rate, and time using maturity value formulayou determine present and future valuesyou use simple interest to solve business/consumer scenariosyou answer with the precision of terms appropriate to the problemyou 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 interestyou differentiate between simple and compound interest you determine the number of periods you determine the rate per periodyou compute compound interest and compound amountyou determine present and future values you use compound interest formulas to solve business/consumer scenariosyou determine the effective rate of interestyou answer with the precision of terms appropriate to the problemyou 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 annuityyou differentiate between the present and future value of an annuityyou calculate the amount of a sinking fund payment.you calculate the present and/or future values of an annuityyou apply annuity calculations to business/consumer scenariosyou answer with the precision of terms appropriate to the problemyou 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 discountsyou calculate net costyou differentiate between single and series discountsyou express a series discount as a single discount equivalentyou determine cash discount periodyou compute a cash discount you solve business/consumer scenarios involving the purchasing/buying processyou 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 priceyou compute selling price, cost or markup based on costyou compute selling price, cost or markup based on selling priceyou compute sale price, markdown, or original priceyou solve business/consumer scenarios involving the selling processyou 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 datayou construct charts/graphsyou determine the appropriate chart given the raw datayou calculate measures of central tendenciesyou interpret measures of dispersionyou determine the probability of an event involving normally distributed datayou use statistics to solve business/consumer scenariosyou answer with the precision of terms appropriate to the problemyou answer in the correct units of measure and labels  |