

Course of Study: Business Mathematics (MATH1010)

Course Description:

This course begins with basic algebra in solving typical business word problems then ends with arithmetic and geometric mean applications, business applications for elementary statistics, and internal rate of return. The course is taught as a CCP class, allowing students the option of earning 3 semester credits at NC State. At the high school level, this course is one semester of a year-long math course.

Course Credit:

This course counts as $\frac{1}{2}$ of the 1 credit of Mathematics at a high school level. Students electing to take the full-year course at the college level can earn up to 2 credits of high school math and up to 6 semester credits.

Prerequisites:

- High School: Algebra 2
- College: MATH 0074 with a minimum of C- grade or a Compass algebra 31 or higher or ACT Math 21 or higher

Purpose of Course:

This course begins with basic algebra in solving typical business word problems. Other major topics include the calculation of trade discounts, markup and markdown of perishable merchandise, simple and compound interest, future and present value, discounting promissory notes, calculating annuities, depreciation, inventory and overhead and business statistics. The course ends with arithmetic and geometric mean applications, business applications for elementary statistics, and internal rate of return.

Course Content:

Domains	Standard Clusters
Algebra	<ul style="list-style-type: none">• Demonstrate proficiency in basic mathematical operations and procedures including fractions, decimals, per cents, and basic equation solving.• Solve algebraic word problems that demonstrate the ability to construct workable equations in solving for unknowns.• Calculate discounts and net prices in a variety of word problems.• Solve a series of markup and markdown problems.• Apply interest computations to business problems including simple interest applications, discounting applications, compound interest and present value applications.• Calculate and apply annuities and sinking funds to business problems.• Calculate depreciation for financial reporting and for tax reporting.• Assign cost to ending inventory using weighted average, FIFO and LIFO methods.• Calculate and apply internal rate of return to business problems.
Statistics	<ul style="list-style-type: none">• Calculate basic statistics mean median, mode, and standard deviation.• Calculate the arithmetic and geometric mean to solve various business problems.