

## Florida Department of Education

## COURSE DESCRIPTION - GRADES 9-12, ADULT

**Subject Area:** Mathematics  
**Course Number:** 1205370  
**Course Title:** Consumer Mathematics  
**Credit:** 1.0

**Will meet graduation requirement for Mathematics**

**Basic Assumptions for Mathematics Education:**

- All students have access to calculators and computers.
- Classroom activities are student-centered, emphasizing concrete experiences and active/experiential learning.
- All courses have increased emphasis on problem solving, estimation, and real-world applications.
- Evaluation includes alternative methods of assessment.
- All strands addressed in the Sunshine State Standards are developed across the PreK-12 curriculum.

- A. Major Concepts/Content.** The purpose of this course is to enable students to develop knowledge and skills in problem solving, communication, reasoning, and connections as related to consumer services and personal financial management.

The content should include, but not be limited to, the following:

- purchase and sales of goods and services
- cost of credit
- banking services
- investments
- job-related mathematics
- personal income and taxes
- retirement
- insurance
- budgeting
- housing rental and ownership

- automobile rental and ownership
- commercial transportation
- appropriate use of calculators and other technology

This course shall integrate Goal 3 Student Performance Standards of the Florida System of School Improvement and Accountability as appropriate for the content and processes of the subject matter.

Course student performance standards must be adopted by the district, and they must reflect appropriate Sunshine State Standards benchmarks.

**B. Special Note.** None

**C. Course Requirements.** These requirements include, but are not limited to, the benchmarks from the Sunshine State Standards that are most relevant to this course. Benchmarks correlated with a specific course requirement may also be addressed by other course requirements as appropriate. The benchmarks printed in regular type are required for this course. **The portions printed in *italic type* are not required for this course.**

**After successfully completing this course, the student will:**

**1. Use mathematical problem-solving strategies to solve problems relating to consumer needs, personal money management, and financial management.**

- MA.A.1.4.3 understand concrete and symbolic representations of real *and complex* numbers in real-world situations.
- MA.A.4.4.1 use estimation strategies in complex situations to predict results and to check the reasonableness of results.
- MA.B.1.4.3 relate the concepts of measurement to similarity and proportionality in real-world situations.
- MA.B.2.4.2 solve real-world problems involving rated measures (miles per hour, feet per second).
- MA.B.3.4.1 solve real-world and mathematical problems involving estimates of measurements, including length, time, weight/mass, temperature, money, perimeter, area, and volume and estimate the effects of measurement errors on calculations.
- MA.C.3.4.1 represent and apply geometric properties and relationships to solve real-world and mathematical problems including ratio, proportion, *and properties of right triangle trigonometry.*

- MA.D.1.4.1 describe, analyze, and generalize relationships, patterns, and functions using words, symbols, variables, tables, and graphs.
- MA.D.1.4.2 determine the impact when changing parameters of given functions.
- MA.E.1.4.1 interpret data that has been collected, organized, and displayed in charts, tables, and plots.
- MA.E.3.4.2 explain the limitations of using statistical techniques and data in making inferences and valid arguments.

**2. Use mathematical skills appropriate to consumer mathematics.**

- MA.A.1.4.1 associate verbal names, written word names, and standard numerals with integers, rational numbers, irrational numbers, real numbers, and *complex numbers*.
- MA.A.1.4.4 understand that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, *scientific notation*, exponents, *radicals*, *absolute value*, and *logarithms*.
- MA.A.2.4.2 understand and use the real number system.
- MA.A.3.4.3 add, subtract, multiply, and divide real numbers, including square roots and exponents, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.
- MA.A.5.4.1 apply special number relationships such as sequences and series to real-world problems.
- MA.B.1.4.1 use *concrete and graphic models to derive* formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional shapes, including rectangular solids, cylinders, cones, and pyramids.
- MA.B.1.4.2 use concrete and graphic models to derive formulas for finding rate, distance, time, *angle measures*, and *arc lengths*.
- MA.E.1.4.2 calculate measures of central tendency (mean, median, and mode) and dispersion (range, *standard deviation*, and *variance*) for complex sets of data and determine the most meaningful measure to describe the data.