

Curriculum Guide

Course: Mathematics IV

Course Number: 14:01

Written: 3/09

Prerequisites: none

Level/credits: LLD/5 credits

Grades offered to: 11th and 12th

Course Description

Mathematics IV is a required course for the Learning and Language Disabled class. It is designed for secondary special education students who have a basic grasp of mathematical computation but require additional instruction for applying these skills as a wise consumer. Instruction is provided using a variety of realistic, consumer-oriented applications. The goal of Mathematics IV is to provide students with the tools they will need to function as independent, employable, contributing citizens.

High Point Regional High School's curriculum and instruction are aligned to the state's Core Curriculum Content Standards and address the elimination of discrimination by narrowing the achievement gap, by providing equity in the educational programs and be providing opportunities for students to interact positively with others regardless of race, creed, color, national origin, ancestry, age, marital status,

affectional or sexual orientation, gender, religion, disability, or socio-economical status.

Goals and Objectives

Goal #1 – To understand and apply the mathematics involved in improving a home.

Objective – To compute payments for purchases of items, including comparing and computing regular price, discount rate, and sale price.

Objective – To use elapsed time to determine date of payment.

Objective – To estimate the quantity of materials and the costs associated with painting a room, papering a wall, covering a floor, building an addition, and insulating an attic.

Objective – To calculate the amount and cost of grass seed or fertilizer required for a lawn.

Objective – To find the length of fencing required to enclose a yard.

Goal #2 – To understand and apply the mathematics involved in traveling.

Objective – To read maps and compute distance.

Objective – To compute travel fares and hotel expenses.

Objective – To compute the cost of car rentals and parking charges.

Objective – To compare time in different time zones.

Objective – To calculate flight times between different time zones.

Goal #3 – To understand and apply the mathematics involved in budgeting your money.

Objective – To compute average income.

Objective – To compute the percent of income to be spent on each budget item.

Objective – To read and create circle graphs as summaries of budget spending.

Objective – To complete records to determine if a budget is balanced.

Goal #4 – To understand and apply the mathematics involved in banking and investing.

Objective – To compute and compare earnings from simple and compound interest.

Objective – To compute the value of investments over time.

Objective – To use and maintain a checking account.

Objective – To determine the value of stocks and compute gains and losses.

Objective – To evaluate profits and losses from investments.

Goal #5 – To understand and apply the mathematics involved in preparing for careers.

Objective – To read a sales tax table and compute the value of purchases that include tax.

Objective – To determine correct change.

Objective – To order fractions from smallest to largest.

Objective – To practice making precise measurements.

Objective – To measure line segments and compute scale length for drawings.

CCCS Addressed

4.1 Number and Numerical Operations – All students will develop number sense and will perform standard numerical operations and estimations on all types of numbers in a variety of ways.

4.2 Geometry and Measurement – All students will develop spatial sense and the ability to use geometric properties, relationships, and measurement to model, describe and analyze phenomena.

4.5 Mathematical Processes – All students will use mathematical processes of problem solving, communication, connections, reasoning, representations, and technology to solve problems and communicate mathematical ideas.

Units: Marking Period 1

Chapter Seven: Buying furniture and appliances, 90-day purchase plan, perimeter, area, painting a room, buying paint, buying wallpaper, covering the floor, computing length of molding, wall-to-wall carpeting, additions to existing homes, insulation, seeding and feeding lawns, and fencing a yard

Units: Marking Period 2

Chapter Eight: Reading a map, estimating distances, reading a bus schedule, computing bus fares, staying in hotels, package travel plans, exchanging currency, renting a car, parking expenses, time zones, and traveling by air

Chapter Nine: Finding average income, preparing a budget, adjusting a budget, using circle graphs, and balancing a budget

Midterm

Units: Marking Period 3

Chapter Ten: Simple interest, compound interest, doubling your money, checking accounts, keeping the account up to date, reconciling a checking account, stock market, evaluating profits and losses, and earning dividends

Chapter Eleven: Large numbers, federal budget, paying taxes, reading the tax table, using a tax schedule, refund or balance due, property tax, and effective tax rate

Units: Marking Period 4

Chapter Twelve: Salesclerks, square roots, electricians, auto mechanics, carpenters, drafters, and machine operators

Final Exam

Evaluation

Homework based on	10 points
Participation and class work	10 points
Quizzes	50 points
Tests	100 points
Notebook check	10 points

Midterm (written 2009)

Final (written 2009)

References: Textbook: Consumer Mathematics, Kathleen M. Harmeyer,
American Guidance Service, Inc., 2001. Blackline master worksheets, SmartBoard,
scientific calculator, computer, and Internet access