

Common Course Outline

MATH 081

Basic Mathematics

3 Semester Hours

The Community College of Baltimore County

Description

Topics include fractions, decimals, ratios, rates, proportions, percents, basic statistics, U.S. and Metric units of measurement, perimeter, area, volume, signed numbers, and first degree equations. Pre-requisites: ASE MATH and successful “re-entry” test, or LVM0 placement, or a satisfactory score on the math placement test; and RDNG 051 or LVR1.

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Perform operations on fractions and decimals;
2. Solve fraction and decimal word problems;
3. Interpret ratios;
4. Solve proportions;
5. Solve percent problems;
6. Convert to percents from fractions and decimals;
7. Evaluate whole numbers with exponents;
8. Calculate perimeter, area, and volume of geometric figures;
9. Use Order of Operations to simplify expressions;
10. Convert units of measurement within both the U.S. and Metric systems;
11. Calculate mean, median, and mode;
12. Read and interpret graphs (bar, circle, line);
13. Perform arithmetic operations on signed numbers;
14. Use Order of Operations on signed numbers;
15. Solve equations using the Addition Property;
16. Solve equations using the Multiplication Property;
17. Solve equations using both properties;
18. Translate English sentences to mathematics; and,
19. Translate and solve equations.

Major Topics

- I. Fractions
 - A. Operations
 - B. Applications
- II. Decimals
 - A. Operations
 - B. Applications

- III. Ratio and Proportion
 - A. Calculate using Ratios, Rates, and Proportions
 - B. Solve Proportion Problems
- IV. Percents
 - A. Define and Convert Percents
 - B. Solve Percent Problems
 - C. Applications
- V. Statistics
 - A. Graphs
 - B. Measures of Central Tendency
- VI. Measurement and Geometry
 - A. Length, Mass, and Capacity
 - B. Perimeter, Areas, and Volume
- VII. Signed Numbers
 - A. Operations on Signed Numbers
 - B. Order of Operations
- VIII. Introduction to Algebra
 - A. Expressions
 - B. Solve Basic Equations

Optional Topics

Find perimeter and area of composite figures.

Course Requirements

There will be multiple opportunities for the instructor to assess student progress through classwork and/or homework.

Grading/exams: Grading procedures will be determined by the individual faculty member but may include the following:

Quizzes, Tests, Midterm, and Final Exam

Quizzes and Final Exam: Final exam will count between 25% and 30% of the grade. Student must have an overall average of 70 % to pass this course.

Grade: 90-100%: A

80-89%: B

70-79%: C

Below 70%: Unsatisfactory Performance - Student will receive an F.

Other Course Information

This course may be taught in a non-traditional environment.

The Community College of Baltimore County is committed to providing a high-quality learning experience that results in growth in knowledge, attitudes, and skills necessary to function successfully as a transfer student, in a career and as a citizen. To accomplish this goal, we maintain high academic standards and expect students to accept responsibility for their individual growth by attending classes, completing all homework and other assignments, participating in class activities and preparing for tests.

We take seriously our responsibility to maintain high-quality programs and will periodically ask you to participate in assessment activities to determine whether our students are attaining the knowledge, attitudes and skills appropriate to various courses and programs. The assessment activities may take many different forms such as surveys, standardized or faculty-developed tests, discussion groups or portfolio evaluations. We ask that you take these activities seriously so that we can obtain valid data to use for the continuous improvement of CCBC's courses and programs.

Date Revised: 09/14/2006

Date Updated: 01/21/08