

COURSE OUTLINE
MATH 060
BASIC MATHEMATICS
2 Semester Hours

HOWARD COMMUNITY COLLEGE

Course Description

In this course, students will improve their arithmetic skills as well as their ability to solve applications of arithmetic. The subject areas will be addition, subtraction, multiplication, and division of whole numbers, fractions, decimals and integers. Also included are factoring numbers into the products of primes; conversions between decimals, fractions and percents; ratio and proportion problems; place value; least common multiple. The use of the scientific calculator as a problem solving tool is also taught. This course is taught using computer-assisted instruction. To complete this course, students may need to schedule additional time in our open computer labs. Prerequisite: ENGL 093 or appropriate score on math placement test (2 hours per week)

Overall course objectives

Upon successfully completing this course, students should be able to:

1. Add, subtract, multiply and divide whole numbers, rational numbers (fractions, mixed numbers and decimals), signed numbers.
2. Factor whole numbers into products of primes.
3. Change numbers from decimal, fractional, or percent form to one of the other forms.
4. Round off whole and decimal numbers.
5. Understand place value system.
6. Find least common multiple and least common denominator.
7. Simplify ratios and solve proportions.
8. Solve application problems involving whole numbers, fractions or percents.

Major Topics

- I. Whole numbers
 - A. Basic operations
 - B. Prime factorization
 - C. Application Problems
- II. Fractions
 - A. Basic operations
 - B. Least common multiple, least common denominator
 - C. Application Problems
- III. Decimals
 - A. Basic operations
 - B. Place value
 - C. Rounding

- IV. Percents
 - A. Ratio/proportion
 - B. Application problems
- V. Integers
 - A. Basic operations
 - B. Application problems

Course Requirements

Grading/Exams: Grading procedures are established by the Mathematics Division and will include several unit exams, quizzes and a comprehensive final exam.

Technology requirements: Scientific calculator (TI-89 is not permitted)

Other Course Information

Credits awarded for the completion of this course do not fulfill degree requirements in any degree or certificate program and are not transferrable to four-year colleges.