

North Hennepin Community College

MATH 0801: Math Foundations

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:

This course requires the following prerequisite

Placement into MATH 0801

Corequisites: None

MnTC Goals: None

This course prepares students for Math 0900, Mathematical Literacy. Students will improve their number sense and skills with whole numbers, integers, fractions, mixed numbers, and decimals including calculations without calculators. Other topics will include place-value and order, rounding and estimation, and order of operations, all with a focus on integers, fractions, mixed numbers, and decimals, one-step application problems, and an introduction to percent. Additional course content includes math specific study skills and math success strategies. Credit does not apply to a degree.

B. COURSE EFFECTIVE DATES: 12/16/2015 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Develop a robust number sense:
 - ¿ Read, write, represent, and interpret whole numbers, integers, fractions, decimals, mixed numbers, and percents in real-world and mathematical situations; (ELO 1, 2)
 - ¿ Compare numerical values represented as whole numbers, integers, fractions, decimals, and mixed numbers using place value, equality and inequalities, and the number line; (ELO 1, 2)
 - ¿ Round whole numbers, fractions, decimals, mixed numbers, and percents; (ELO 1, 2)
2. Perform the four operations on whole numbers, integers, fractions, mixed numbers, and decimals without a calculator:
 - ¿ Add, subtract, multiply, and divide: integers (ELO 1, 2);
 - ¿ Add, subtract, multiply, and divide: fractions (ELO 1, 2);
 - ¿ Add, subtract, multiply, and divide: mixed numbers (ELO 1, 2);
 - ¿ Add, subtract, multiply, and divide: decimals (ELO 1, 2);
 - ¿ Estimate sums, differences, products, and quotients involving whole numbers, integers, fractions, decimals, and mixed numbers; (ELO 1, 2)
 - ¿ Correctly apply the order of operations to expressions involving combinations of whole numbers
3. Develop an understanding of when to use a particular operation for one-step application problems that does not involve variables:
 - ¿ Solve application problems involving integers (ELO 1, 2);
 - ¿ Solve application problems involving fractions (ELO 1, 2);
 - ¿ Solve application problems involving mixed numbers (ELO 1, 2);
 - ¿ Solve application problems involving decimals (ELO 1, 2);
4. Develop an understanding of percent:
 - ¿ Understand what a percent is and how it is used (ELO 1, 2);
 - ¿ Convert between percents, decimals, fractions, and mixed numbers (ELO 1, 2);
 - ¿ Solve one-step percent problems of the form amount = percent * base or percent = amount/base that do not involve variables (ELO 1, 2);
5. Develop math specific study skills and math success strategies:
 - ¿ Learn how to successfully utilize print and digital resources including a math textbook, D2L, and online math homework systems.
 - ¿ Understand and implement time management strategies
 - ¿ Learn how to identify and successfully use appropriate resources including: instructor office hours, academic advising, academic support services, counseling, etc.
 - ¿ Learn how to study, take notes in a math class, ask questions, and do math homework to improve learning and long-term understanding of the material
 - ¿ Learn how to study successfully

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

1. Knowledge of Human Cultures and the Physical and Natural World - Through study in the sciences, mathematics, social sciences, humanities, histories, languages, the arts, technology and professions.
2. Intellectual and Practical Skills - Including: Inquiry and analysis; Critical and creative thinking; Written and oral communication; Quantitative literacy; Information literacy; Teamwork and problem solving.