North Hennepin Community College

MATH 0901: Introduction to Algebra

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:
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Corequisites: None

MnTC Goals: None

This course assumes only that the student have a working knowledge of operations with real numbers and pre-algebra. Topics include solving and graphing linear equations and inequalities, integer exponents, polynomial algebra, polynomial factoring, proportional reasoning (rates, ratios, proportions, and percents), units and unit/dimensional analysis (including the metric system), geometry of two and three-dimensional figures. This course emphasizes applications for all topics and the acquisition of by-hand skill. Credit does not apply to a degree.

Prerequisite: Placement Test or successful completion of Math 0800.

B. COURSE EFFECTIVE DATES: 08/27/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. See Course Description and Course Outcomes.

D. LEARNING OUTCOMES (General)

1. Evaluate and simplify expressions containing variables (NHCC ELO 1, 2)
2. Solve linear equations and equalities in one variable (NHCC ELO 1, 2)
3. Solve application problems involving the use of linear equations and inequalities (NHCC Core Ability Critical Thinking, comps. a, c); (NHCC ELO 1, 2)
4. Graph linear equations and inequalities in two variables (ELO 1, 2);
5. Calculate and interpret the slope of a line (ELO 1, 2);
6. Use and identify various forms of equations of lines (ELO 1, 2);
7. Use rules of integer exponents to evaluate and simplify expressions (ELO 1 ,2);
8. Add, subtract, multiply, and divide polynomials (NHCC ELO 1, 2)
9. Factor polynomials (NHCC ELO 1, 2)
10. Solve quadratic equations by factoring (ELO 1, 2);
11. Solve ratio, percent, and proportion problems in a variety of forms (ELO 1, 2);
12. Understand units and their proper use as well as convert between different systems of measurement (ELO 1, 2);
13. Use unit analysis to solve application problems (ELO 1, 2);
14. Geometry including but not limited to area and perimeter (ELO 1, 2).

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.