

North Hennepin Community College

MATH 0970: Bridge to College Algebra

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites:

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Corequisites: None

MnTC Goals: None

This course is designed for students who have successfully completed Math 900 and wish to prepare for Math 1150. Topics covered include linear equations and inequalities, integer and rational exponents, polynomial algebra, polynomial factoring, rational expression algebra, complex numbers, and quadratic equations. This course emphasizes the acquisition of by-hand skill. Credit does not apply to a degree.

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

C. OUTLINE OF MAJOR CONTENT AREAS

1. The purpose of this course is to prepare students for the algebraic manipulations they will encounter in College Algebra. Students coming from Math 900 will have experience with functions, applications, solving linear equations, and positive exponents. Therefore, it is recommended that functions need not be a component of this course and applications need not be emphasized.
2. In addition, solving linear equations should not be treated as a new topic, but instead as one that needs a more in-depth treatment (i.e. students will need more practice solving more difficult equations such as those containing fractions and decimal numbers). Polynomial factoring is only minimally covered in Math 900 and will need to be covered in depth.

D. LEARNING OUTCOMES (General)

1. Solve linear equations and inequalities in one variable (ELO 1, 2ad)
2. Use rules of exponents to evaluate and simplify expressions (ELO 1, 2ad)
3. Interpret radicals and rational exponents (ELO 1, 2ad)
4. Simplify algebraic expressions containing radicals and rational exponents (ELO 1, 2ad)
5. Add, subtract, and multiply polynomials (ELO 1, 2ad)
6. Factor polynomials (ELO 1, 2ad)
7. Add, subtract, multiply, and divide rational expressions (ELO 1, 2ad)
8. Simplify rational expressions and complex fractions (ELO 1, 2ad)
9. Solve rational equations (ELO 1, 2ad)
10. Solve equations involving radicals/rational exponents (ELO 1, 2ad)
11. Solve equations involving absolute value (ELO 1, 2ad)
12. Simplify and add, subtract, multiply and divide complex numbers (ELO 1, 2ad)
13. Solve quadratic equations using factoring and the quadratic formula. (ELO 1, 2ad)

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.