Alexandria Technical and Community College

MATH 1420: College Algebra

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 3
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires any of these seven prerequisites
  MATH 0431 - Intermediate Algebra (Minimum grade: 2.0 GPA Equivalent and Number of Years Valid: 5)
    A score of 1158 on test MN Comprehensive Assessment Math
    A score of 2 on test Algebra
    A score of 22 on test ACT Math
    A score of 50 on test Accuplacer College Level Math
    A score of 530 on test SAT Math Composite
    A score of 250 on test Accuplacer NG Advanced Algebra Functions

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

This course meets Minnesota Transfer Curriculum (MnTC) goal area 4. This course is for learners with a solid foundation in algebra. Topics include algebraic expressions, linear equations, algebraic word problems, exponents, systems of linear equations, functions, graphs, and quadratic equations. The focus of this course is to develop algebraic math skills to the extent that the learner can apply these skills to solving practical real world problems. A graphing calculator is required. Prerequisite: College level math score on a placement test or a minimum grade of "C" in Intermediate Algebra (MATH0431).

B. COURSE EFFECTIVE DATES: 12/19/2009 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Complex Numbers
2. Equations and inequalities
3. Exponential functions
4. Functions and function notation
5. Graphs of equations in the rectangular coordinate system
6. Linear systems
7. Logarithmic functions
8. Other functions and operations on functions
9. Quadratic and polynomial functions
10. Solving polynomial equations

D. LEARNING OUTCOMES (General)

1. The learner will be able to solve for an indicated variable.
2. The learner will be able to solve the problems by applying a 5-step systematic process.
3. The learner will be able to add, subtract, multiply, divide, and factor algebraic expressions, providing the answer in simplest form.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   Goal 04 - Mathematical/Logical Reasoning
   1. Illustrate historical and contemporary applications of mathematical/logical systems.
   2. Clearly express mathematical/logical ideas in writing.
   3. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted