



## ALGEBRA SKILLS LAB — MATS 0310

### A. Course Description

- **Credits:** 4.00
- **Lecture Hours/Week:** 4.00
- **Lab Hours/Week:** 0.00
- **OJT Hours/Week:** 0
- **Prerequisites:**
  - MATS 0100: Mathematics Skills Lab
  
- **Corequisites:** None
- **MnTC Goals:** None

Nominally serves as preparation for Mats 1350 Math for Liberal Arts (non-STEM majors), or MATS 0600 Intermediate Algebra followed by Mats 1300 College Algebra or Mats 1251 Statistics (STEM majors). Topics include simplifying algebraic expressions, solving linear equations, the slope-intercept form of a line, and study skills. A combination of group activities and ALEKS adaptive software is used, giving students some freedom to work further in the curriculum and accelerate their progress through the developmental sequence.

### B. Course Effective Dates: 5/21/14 – Present

### C. Outline of Major Content Areas

1. Exponents and Polynomials
2. Line Equations and Functions
3. Linear Equations and Inequalities
4. Quadratic Equations
5. Radical Expressions and Equations
6. Rational Expressions and Equations
7. Systems of Equations

### D. Learning Outcomes

1. Build problem solving strategies.
2. Decipher applied algebra problems using problem solving strategies.
3. Develop algebra skills from individualized starting point. Topics could include, but are not limited to: arithmetic with real numbers; simplify & evaluate algebraic expressions; solve linear equations & linear inequalities; use set & interval notation; use a coordinate plane to graph points & line equations; find the

equation of a line; understand function & of domain & range; distinguish between functions & other relations symbolically, graphically, or in tabular form; solve a system of equations with 2 or 3 variables; perform functions with polynomials; factor polynomials

4. Develop study skills for written mathematics exams.
5. Understand how algebra could be useful in future career.

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

**F. Learner Outcomes Assessment**

As noted on course syllabus

**G. Special Information**

None noted