

# Minnesota State College Southeast

## MATH 0533: Pre-College Math (3 cr)

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites:

This course requires either of these prerequisites

A score of 46 on test Accuplacer Elementary Algebra

A score of 246 on test Accuplacer NG Quantitative Reasoning

Corequisites: None

MnTC Goals: None

This course covers real numbers, variable expressions, general and literal equations, solve and graph linear equations in two variables, graph and evaluate functions, sets, solving and graphing inequalities and solving systems of equations. Related practical application problems are explored. (Prerequisites: Elementary Algebra Accuplacer Score of 46 or higher) (3 credits: 3 lecture/0 lab)

**B. COURSE EFFECTIVE DATES:** 12/15/2014 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Linear and Exponential Functions
2. General and Literal Equations
3. Systems of Linear Equations and Inequalities
4. Polynomial Expressions and Equations

### D. LEARNING OUTCOMES (General)

1. Represent sets of real numbers in multiple forms
2. Recognize and solve linear equations and inequalities in one variable
3. Identify and solve linear application problems involving mixtures and uniform motion
4. Solve literal equations
5. Sketch linear functions, and translate between graphs, tables, and symbolic representations
6. Find and interpret slope as a constant rate of change using points, graphs, and equations
7. Represent and solve systems of linear equations and inequalities in two variables using a variety of method
8. Develop fluency with simplifying, adding, subtracting, multiplying, and dividing polynomials in multiple variables
9. Factor polynomials using a common monomial factor as well as the grouping method
10. Evaluate a function at a given point in its domain
11. Understand the laws of exponents and scientific notation

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

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted