

The requirements to pass this class are the following:

S (Satisfactory): requires that you meet *all three* of these conditions:

- 1. Exit Exam score 60% or higher; and**
- 2. Average of all 7 tests (including the Exit Exam) 70% or higher; and**
- 3. At least 12 lab hours as described above under “lab requirement”**

An “S” grade permits you to move on to MAT 1033 (Intermediate Algebra).

P (Progress): will be awarded if you meet exactly two of the three requirements for an “S” grade and your average for all 7 tests is at least 60%. Not a passing grade.

U (Unsatisfactory): will be awarded if you meet less than two of the three requirements for an “S” grade, or if your average for all 7 tests is below 60%.

A “U” grade requires that you repeat MAT 0024 before taking any other Math course. A “U” grade affects your grade point average.

Incompletes: Incompletes will be given in very limited situations. In order to qualify for an “I” grade, the student must be passing the course at the time the “I” grade is negotiated; be so near the end of the course that he/she requires no further instruction; and have a justifiable and documented reason for not being able to finish the course on schedule.

Extra Credit: You will be allowed the opportunity to obtain extra credit points during the semester. These points may be obtained on extra credit quizzes. These quizzes will be taken at the Mathematics Testing Facility in room 1375. Your professor will announce the dates when quizzes will be administered.

HOMEWORK: Homework will be assigned at the end of each lecture. It will not be collected but questions will be answered at the beginning of each class. If you do not do your homework your chances of passing this course are minimal, so keep up with the work!

ATTENDANCE: Roll will be taken at the beginning of every class. Students are expected and required to attend and participate in class and lab. You are responsible for all material covered and/or distributed in class. It is your responsibility to save this syllabus and all tests.

WITHDRAWAL POLICY: If you decide to withdraw from this course it is your responsibility to do so in order to receive a grade of “W”. Drop/withdrawals should be conducted through the office of the registrar. **A student who is absent three consecutive classes may be dropped from the class.**

CLASSROOM BEHAVIOR: *Cellular phones and other electronic devices must be turned off before class.* Under no circumstances a student will be allowed to use a cell phone inside the classroom.

Please, be prompt. Late arrivals are very disturbing for the instructor and disruptive to fellow students. You should plan to leave enough time to allow for traffic, parking, inclement weather, etc.

“Cheating and plagiarism will not be tolerated. If you are caught cheating or plagiarizing in any form, you will receive a failing grade for the course and be reported to the college for appropriate disciplinary action”.

College Preparatory Algebra

Course Competencies:

Competency 1: The student will demonstrate knowledge of real numbers by:

- a. Performing operations of addition, subtraction, multiplication, and division on real numbers.
- b. Applying the order of operations agreement on real numbers.
- c. Recognizing and applying the commutative, associative, identity, inverse, and distributive properties of real numbers.
- d. Evaluating and interpreting absolute value

Competency 2: The student will demonstrate knowledge of algebraic expressions by:

- a. Evaluating algebraic expressions.
- b. Simplifying expressions.

Competency 3: The student will demonstrate knowledge of polynomial by:

- a. Using properties of exponents to simplify exponential expressions.
- b. Performing the operations of addition, subtraction, multiplication on polynomials.
- c. Dividing a polynomial by a monomial.

Competency 4: The student will demonstrate knowledge of scientific notation by:

- a. Converting decimal notation to scientific notation and scientific notation to decimal notation.
- b. Multiplying and dividing numbers that are in scientific notation.

Competency 5: The student will demonstrate knowledge of linear equations by:

- a. Solving linear equations in one variable.
- b. Solving linear equations with one variable that have no solution.
- c. Solving linear equations with one variable that have an infinite number of solutions.
- d. Solving applications involving linear equations including proportions.
- e. Solving literal equations.

Competency 6: The student will demonstrate knowledge of linear inequalities by:

- a. Solving linear inequalities in one variable and graphing the solution set.
- b. Using interval notation to express intervals of real numbers

Competency 7: The student will demonstrate knowledge of graphing by:

- a. Plotting ordered pairs in a Cartesian Coordinate plane.
- b. Identifying points and naming the quadrant or axis on which they lie.
- c. Graphing linear equations of two variables using table of values
- d. Graphing linear equations of two variables using the x-intercept and y-intercept
- e. Determining intercepts from the graph of a line
- f. Graphing horizontal and vertical lines.

Competency 8: The student will demonstrate knowledge of factoring by:

- a. Factoring out the greatest common factor.
- b. Factoring by grouping.
- c. Factoring quadratic trinomials including perfect square trinomials
- d. Factoring special products.

Competency 9: The student will demonstrate knowledge of rational expressions by:

- a. Simplifying rational expressions.

Competency 10: The student will demonstrate knowledge of radical expressions by:

- a. Simplifying square roots of monomials.
- b. Adding, subtracting, and multiplying square roots of monomials

Competency 11: The student will demonstrate knowledge of quadratic equations by:

- a. Solving quadratic equations by factoring

Course Outline

- 1.2 Exponents, Order of Operations, and Inequality
- 1.3 Variables, Expressions, and Equations
- 1.4 Real Numbers and the Number Line
- 1.5 Adding and Subtracting Real Numbers
- 1.6 Multiplying and Dividing Real Numbers
- 1.7 Properties of Real Numbers
- 1.8 Simplifying Expressions

Quiz 1

Exam 1

- 2.1 The Addition Property of Equality
- 2.2 The Multiplication Property of Equality
- 2.3 More on Solving Linear Equations
- 2.4 An Introduction to Applications of Linear Equations
- 2.5 Formulas and Applications of Linear Equations
- 2.6 Ratios and Proportions

Quiz 2

Exam 2

- 2.8 Solving Linear Inequalities
- 3.1 Reading Graphs; Linear Equations in Two Variables
- 3.2 Graphing Linear Equations in Two Variables

Quiz 3

Exam 3

- 5.1 The Product Rule and Power Rules for Exponents
- 5.2 Integer Exponents and the Quotient Rule
- 5.3 An Application of Exponents: Scientific Notation
- 5.4 Adding and Subtracting Polynomials; Graphing Simple Polynomials
- 5.5 Multiplying Polynomials
- 5.6 Special Products
- 5.7 Dividing Polynomials

Quiz 4

Exam 4

- 6.1 The Greatest Common Factor; Factoring by Grouping
- 6.2 Factoring Trinomials
- 6.3 More on Factoring Trinomials

- 6.4 Special Factoring Rules
- 6.5 Solving Quadratic Equations by Factoring

Quiz 5

Exam 5

- 7.1 The Fundamental Property of Rational Expressions
- 7.2 Multiplying and Dividing Rational Expressions
- 8.1 Evaluating Roots
- 8.2 Multiplying, Dividing, and Simplifying Radicals
- 8.3 Adding and Subtracting Radicals

Quiz 6

Exam 6

Exit Exam

COURSE OUTLINE

Please note: Test dates are given for the students' convenience only. I reserve the right to make changes in the test dates as needed. Any changes will be announced in class as far in advance as possible.

Tentative Schedule	Date	
Week 1		
01/06, 01/08		Intro, 1.2, 1.3
Week 2		
01/13		1.4 , 1.5,
01/15		Quiz 1
Week 3		
01/20, 01/22		1.6, 1.7, 1.8
Week 4		
01/27		Review Quiz 2
01/29		Test I (1.2 – 1.8), 2.1, 2.2
Week 5		
02/03		2.3, 2.4
02/05		2.5
Week 6		
02/10		Review Quiz 3
02/12		Test II (2.1 – 2.5), 2.6
Week 7		
02/17		2.8, 3.1
02/19		3.2
Week 8		
02/24		Review Quiz 4
02/26		Midterm (1.2 - 3.2), 5.1
Week 9		
03/03		5.2, 5.3, 5.4
Week 10		
03/10		5.5, 5.6
03/12		5.7
Week 11		
03/17		Review Quiz 5
03/19		Test III (5.1 – 5.7), 6.1
Week 12		
03/24		6.2, 6.3
03/26		6.4
Week 13		
03/31		6.5
04/02		Review Quiz 6
Week 14		
04/07		Test IV (6.1 – 6.5)
04/09		7.1, 7.2
Week 15		
04/14		8.1, 8.2, 8.3
04/16		Review Quiz 7
Week 16		
04/21		Test V (7.1, 7.2, 8.1 – 8.3)
04/23		Review
Week 17		
04/28		Exit Exam