

Instructor: Sarah Brewer

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Office: S201

Phone: 251.441.2127

Course web site: brewermath.com (redirects to mathemartiste.com)

Office Hours: MonWedFri 10:00 (3rd per), Tues 1:45 (7th per), Thurs 2:45-4:45 (8th-9th per) and by appointment

Math Lab (free tutoring): Monday-Thursday 7:00-9:00pm in S201 and sometimes Sundays

Course Description: This course is intended to teach students the fundamentals of algebra. The course introduces algebra topics such as polynomials, factoring, exponents and radicals, linear and quadratic equations, functions, graphs, systems of equations, and applications. The course prepares students for Accelerated Algebra. Prerequisites: none.

Text: *Intermediate Algebra*, 5th ed. by Aufmann, Barker and Lockwood.

Coverage: 1.1-1.4, 2.1-2.5, 3.1-3.6, 4.1-4.2, 5.1-5.7, 6.1-6.2, 6.6, 7.1-7.3, 8.1-8.2

Grade determination:

Homework (weekly)	~10x10 points each	Quizzes (~2/wk)	~20x10 points each
Tests (best 3/4)	3x100 points each	Final Exam	1x200 points
Total	~800 points		

Homework will be assigned daily, both from the textbook and online at Khan Academy. At the end of each week, I will assign a homework grade out of a possible 10 points based on your progress online and textbook problems. Assignments should be labeled neatly with your name, date, textbook chapter & section, and problem numbers. Since many problems assigned will be odd-numbered, students should check their own work for accuracy and ask the instructor or Math Lab proctors to check even-numbered problems. Credit will not be given for answers copied from the back of the book or from another student. Show all of your own work. Because homework problems may appear on quizzes, students are encouraged to complete homework early and attend math lab to make sure they know how to work all problems.

Quizzes will be given roughly twice each week and will be a combination of theory memorization (rules, definitions, and formulas) and problems similar to homework. Quizzes can occur any day of the week and may be announced or unannounced. There will be no make-up quizzes. If you miss a quiz with an excused absence, you will have fewer total possible points. Quizzes missed due to unexcused absences will receive a grade of 0. The lowest quiz grade will be dropped.

Tests will consist primarily of material covered since the prior test, but will also include some review questions. The lowest test grade will be dropped at the end of the term. The final exam will be comprehensive.

Tentative test dates: Week 3, Week 5, Week 7, Week 10

Make-up policy: Any homework grades, quizzes, or tests missed due to unexcused absences will receive a grade of zero. There will be NO make-up quizzes. Homework assigned during a student's excused absence must be turned in the first day a student returns to class. All assignments will be available in the course notes posted at brewermath.com. Arrangements to make-up tests must be done BEFORE the test is missed. In case of unexpected illness, this can be done via email. Note: make-up assignments will, in general, be more difficult than the original.

Cell phone policy: Phones should be SILENT (not on vibrate) and away. I reserve the right to confiscate any phone that I deem a distraction. Use of cell phones during quizzes or tests will result in a grade of zero.

Attendance and Tardiness Policy: Three tardies count as one unexcused absence. A student with three unexcused absences may be assigned a grade of WF for the course. Students are responsible for acquiring any missed notes and assignments (as these are posted on the web, this should not be a problem).

Intermediate Algebra Fall 2015

Tentative Topic Schedule

Prerequisite Skills

- Adding and subtracting negative numbers
- Finding and comparing absolute values
- Constructing and interpreting absolute value
- The fundamental theorem of arithmetic
- Least common multiple
- Greatest common divisor
- Simplifying and comparing fractions
- Adding & subtracting fractions and mixed numbers
- Multiplying & dividing fractions and mixed numbers
- Converting, comparing, and ordering mixed numbers and improper fractions
- Locating fractions on the number line
- Converting fractions and decimals

Week 1 – 08/10,11,12,14

- 1.1 Introduction to real numbers
- 1.2 Operations on Rational Numbers
- 1.3 Variable Expressions
- 1.4 Verbal Expressions and Variable Expressions

Week 2 – 08/17,18,19,21

- 2.1 Equations in One Variable
- 2.2 Coin, Stamp, and Integer Problems
- 2.3 Value Mixture and Motion Problems
- 2.4 Applications: Problems Involving Percent

Week 3 – 08/14,25,26,28

- 2.5 Inequalities in One Variable
- 2.6 Absolute Value Equations and Inequalities
- **TEST 1 – Chapters 1-2**
- 3.1 The Rectangular Coordinate System
- 3.2 Introduction to Functions

Week 4 – 08/31; 09/01,02,04

- 3.3 Linear Functions
- 3.4 Slope of a Straight Line
- 3.5 Finding Equations of Lines
- 3.6 Parallel and Perpendicular Lines
- 3.7 Inequalities in Two Variables
- 4.1 Solving Systems of Equations by Graphing and Substitution

Week 5 – 09/07,08,09,11

- 4.2 Solving Systems of Linear Equations by Addition/Elimination Method
- **TEST 2 – Chapters 3-4**
- 5.1 Exponential Expressions
- 5.2 Introduction to Polynomials

Week 6 – 09/14,15,16 (short day)

- 5.3 Multiplication of Polynomials
- 5.4 Division of Polynomials
- 5.5 Factoring Polynomials

Week 7 – 09/21,22,23,25

- 5.6 Special Factoring
- 5.7 Solving Equations by Factoring
- **TEST 3 – Chapter 5**

Week 8 – 09/28,29,30; 10/02

- 6.1 Rational Functions
- 6.2 Rational Expressions

Week 9 – 10/05,06,07,09

- 6.3 Complex Fractions
- 6.4 Rational Equations
- 6.5 Proportion and Variation

Week 10 – 10/12,13,14,16

- 6.6 Literal Equations
- 7.1 Rational Exponents and Radical Expressions
- 7.2 Operations on Radical Expressions
- **TEST 4 – Chapters 6-7**

Week 11 – 10/19,20,21,23

- 7.3 Complex Numbers
- 8.1 Solving Quadratic Equations by Factoring or Taking Square Roots
- 8.2 Solving Quadratic Equations by Completing the Square and by Using the Quadratic Formula

Week 12 – 10/26

- Review
- **Oct 27-30 - Final Exams**

*note that test dates are tentative, and are only included on this schedule to give you an idea of how tests will be spaced according to the material that has been covered.