

Read this syllabus carefully! It contains answers to many of your questions and is our written agreement about the terms of this course. Please keep it where you can find it.

Intermediate Algebra - Math 108

4 credits ... Spring 2002

Instructor: Mrs. Kathy Stover
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Office: Shields 206 - B
Office hours: M,W, TH, F at 9:30 – 11:00
M, T, TH at 2:00 – 3:00
Math Lab (Shields 207) T at 10:00 – 11:00
and F at 1:00 – 2:00

1. **Course Description:** This course is designed to prepare the student for college algebra. It covers real number properties and operations, variable expressions, first degree equations and inequalities, second degree equations, linear analytic geometry, systems of linear equations, polynomials, exponents, radicals, rational expressions, functions, relations, graphs of inequalities and logarithms.
2. **Pre-requisites:** Math 010 with C grade or higher, or placement from COMPASS recommendation
3. **Required Textbook and Supplies:**
 - * Intermediate Algebra with Applications by Aufman, Barker, Lockwood, 5th edition
 - * A calculator with LOG and EXPONENTIAL functions, but not a graphing calculator
 - * Graph paper
4. **Course Objectives:**

The student will demonstrate a working knowledge of the material covered in Chapters 1-10 of the textbook. The topics are listed in the course description above. A detailed list of course objectives is attached to this syllabus.
5. **Policies and procedures:**
 - a. Attendance is mandatory for a student to be successful in this course! **It is important to be in class on time every day!** CSI policy allows me to drop you if you miss eight (8) classes, but **it is your responsibility to drop** if you decide to stop attending class. Do not count on me to drop you unless you personally ask me to do so.
 - b. It is very important for you to do every assignment because practice is the only way to develop and improve math skills! Homework will be assigned each day and will be collected the next scheduled class day. If you cannot make it to class, have someone deliver your assignment for you! Assignments turned in late (anytime after 3:30 p.m. on the day collected) will earn half credit if received by me before that set is returned to other class members, but no credit if that set has been returned to the class. **You must show your work on all problems or credit cannot be given.** Please be sure to include your name, class time and the assignment number on your paper. Homework will be totaled and counted as one test score of 100 points. Because I penalize you for late papers, I will drop your six (6) lowest homework scores at the end of the semester.
 - c. Read the book!! You paid a lot of money for it, and it should be more than just a source of homework problems. For best results, read the new sections before coming to class so the lecture and examples will make more sense to you.
 - d. A student will be subject to a failing grade (0 credit) if caught cheating on any test or copying another student's assignment.
 - e. A missed test will be recorded as a zero unless you make arrangements with me prior to the scheduled test time. If you must miss an exam, contact me before the end of the testing period to discuss your options.
 - f. I will drop your lowest chapter test score when computing final grades. If you miss a test, that would be the score dropped. I will not drop the final exam or your homework average.
 - g. Only non-graphing, non-programmable calculators may be used on assignments and tests.
6. **Outcomes Assessment:**

Students will be asked to complete a student evaluation at the end of the semester. Also, regular

informal feedback will be solicited in an effort to improve the class as we go along. Please feel free to contact me with any suggestions or concerns. Daily assignments, chapter tests, and a comprehensive final exam will be used to assess how well students achieve the course objectives.

7. Grading Procedure:	8 chapter tests (100 points each)	800 points
	Homework assignments	100 points
	Final exam (comprehensive)	<u>200 points</u>
		1100 points

<u>Points</u>	<u>Grade</u>
990-1100	A
880-989	B
770-879	C
660-769	D
0-659	F

8. Aids available to you for this course:

- Me! I am available to help you outside of class. Please stop by my office if you need extra explanation.
- Videotapes of the subject matter are available in several locations. Most may be checked out overnight.
 - GRM Library - Front Desk
 - Math Lab (Shields 207)
 - ADC Instruction Lab (GRM 202) - These tapes are for in-lab use only.
- One-on-one peer tutoring is available at
 - Academic Development Center Instruction Lab (GRM 202)
 - Math Lab (Shields 207)
- One-on-one help from a college math instructor (times will be announced in class) in the ADC Instruction Lab (GRM 202) and Shields Math Lab (Shields 207).
- Computer tutoring programs which parallel our textbook may be available at
 - Math/Science Lab (Shields 211)
 - Math Lab (Shields 207)

During the semester, if you have a difficult time with the subject matter, do not put off getting help! If you wait until you are "totally lost", you might find it impossible to get back on track. Keep up daily and seek help as needed!

9. Chapter tests will be given in the Testing Center on the days specified on the assignment sheets.

The Testing Center (GRM 230) is open the following hours:

8:00am - 9:30pm Monday through Thursday; 8:00am - 4:30pm Friday

You must have a picture ID in order to take a test in the Testing Center. You cannot start a test in the Testing Center if closing time is less than one hour away.

- I often assign "**every other odd**" problem. An assignment of #1-85 every other odd will mean #1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77, 81, 85. However, an assignment saying #3-59 e.o.o. will mean #3, 7, 11, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51, 55, 59.
- If you have a disability that may affect your work in this class and for which you may require reasonable accommodation(s), please see me or the CSI Coordinator of Disabilities Services in the Counseling Center, Taylor Building, 733-9554 ext. 2250 or TDD 734-9929
- You as a student are expected to maintain good conduct during class, treating fellow students with respect and demonstrating a cooperative attitude toward the instructor. Inappropriate behavior will not be tolerated. After one warning, further breaches in acceptable conduct will result in your being dropped from the course, and the matter will be referred to student services for college discipline. If there is a situation creating a problem for you in this class, please let me know so that I can conference with any students who are involved.
- Four easy steps to success in this class: Show up and pay attention; ask questions; practice by doing assignments; don't quit!!**

Math 108 Intermediate Algebra

Tentative Assignments for Spring 2002 (58 class days plus final exam)

Wed. Jan. 23 Orientation and Start 1.1
Thurs. Jan. 24 finish 1.1
Fri. Jan. 25 1.2
Mon. Jan. 28 1.3, 1.4
Wed. Jan. 30 assign Chapter 1 Review
Thurs. Jan. 31 2.1, 2.2, in class review of Chapter 1
Thurs., Fri., or Mon. (Jan. 31 – Feb. 4) ... Take the Chapter 1 Test in the ADC Testing Center
Fri. Feb. 1 2.3
Mon. Feb. 4 2.4
Wed. Feb. 6 2.5
Thurs. Feb. 7 2.6
Fri. Feb. 8 assign Chapter Review, Cum. Review
Mon. Feb. 11 3.1, in class review of Chapter 2
Mon. - Wed. (Feb. 11 – 13))... Take the Chapter 2 Test in the ADC Testing Center
Wed. Feb. 13 3.2
Thurs. Feb. 14 3.3
Fri. Feb. 15 3.4
Mon. Feb. 18 **No School – Presidents' Day**
Wed. Feb. 20 3.5
Thurs. Feb. 21 3.6, assign Chapter Review
Fri. Feb. 22 4.1, in class review of Chapter 3
Mon. – Wed. (Feb. 25 – 27) ... Take the Chapter 3 test in the ADC Testing Center
Mon. Feb. 25 4.2
Wed. Feb. 27 4.3
Thurs. Feb. 28 4.3
Fri. Mar. 1 assign Chapter 4 Review, Cumulative Review
Mon. Mar. 4 5.1, in class review of Chapter 4
Mon. - Wed. (Mar. 4 - 6) ... Take the Chapter 4 test in the ADC Testing Center
Wed. Mar. 6 5.2, 5.3
Thurs. Mar. 7 5.4
Fri. Mar. 8 5.5
Mon. Mar. 11 5.6
Wed. Mar. 13 5.7
Thurs. Mar. 14 assign Chapter 5 Review, Cumulative Review
Fri. Mar. 15 6.1, 6.2, in class review of Chapter 5
Mon. – Wed. (March 18 - 20) ... Take the Chapter 5 test in the ADC Testing Center
Mon. Mar. 18 6.3
Wed. Mar. 20 6.4
Thurs. Mar. 21 6.5
Fri. Mar. 22 6.6
March 25 – 29 **Spring Break!**

Mon. Apr. 1 assign Chapter 6 Review, Cumulative Review
Wed. Apr. 3 7.1; in class review of Chapter 6
Wed. – Fri. (April 3 – 5)... Take the Chapter 6 test in the ADC Testing Center
Thurs. Apr. 4 7.1

Fri. Apr. 5 7.2
Mon. Apr. 8 7.2
Wed. Apr. 10 7.3
Thurs. Apr. 11 7.5
Fri. Apr. 12 assign Chapter Review, Cumulative Review
Mon. Apr. 15 8.1, in class review of Chapter 7
Mon. - Wed. (April 15 - 17) Take the Chapter 7 test in the ADC Testing
Wed. Apr. 17 8.2
Thurs. Apr. 18 8.2
Fri. Apr. 19 8.3
Mon. Apr. 22 8.5
Wed. Apr. 24 8.6
Thurs. Apr. 25 assign Chapter Review, Cumulative Review and 9.1
Fri. Apr. 26 9.3, 9.4, in class review of Chapter 8
Mon. – Wed. (April 29 – May 1) Take the Chapter 8 test in the ADC Testing Center
Mon. Apr. 29 10.1, 10.2
Wed. May 1 10.2
Thurs. May 2 10.3
Fri. May 3 10.4
Mon. May 6 10.4, assign Chapter Review
Wed. May 8 Review worksheet on Chapters 1-5; in class review of Chapters 9 and 10. **Pick up take-home exam on Chapters 9-10. This is due before 3:30 on Thursday, May 9.**
Thurs. May 9 Review worksheet on Chapters 6-10; review for final; turn in Chapter 9-10 test
Fri. May 10 **Answer questions and review for the final exam.**

May 13 - 16 Semester Exams!!

The semester exam for this class will cover Chapters 1 – 9.4 and 10
It will be in our regular classroom, not in the Testing Center. I will announce the time and date as soon as the schedule is distributed to the faculty.

Course Objectives: (Revised for 2001 by Kathy Stover)

The student will demonstrate a working knowledge of the following processes and concepts:

- a. Addition, subtraction, multiplication, and division of rational numbers
- b. Variable expressions (simplify, translate, evaluate)
- c. Operations on sets of numbers (union, intersection)
- d. Set-builder notation and interval notation
- e. First degree equations in one variable (solve, translate from application problems such as coin and stamp problems, integer problems, value mixture problems, uniform motion problems, investment problems, percent mixture problems, and absolute value equations)
- f. First degree inequalities (solve and graph simple, compound, and absolute value inequalities)
- g. Linear functions (evaluate, graph, find slope)
- h. Find length and midpoint of a segment
- i. Write the equations for lines (including parallel lines and perpendicular lines)
- j. Solve systems of linear equations (use graphs, substitution method, addition method, Cramer's Rule, and gaussian elimination with matrices)
- k. Evaluate determinants (2×2 and 3×3)
- l. Polynomials (add, subtract, multiply, divide using long division and synthetic division, evaluate, factor)
- m. Simplify exponential expressions having integer and variable exponents
- n. Scientific notation
- o. Expressions with rational exponents (simplify, change to radical form)
- p. Radical expressions (simplify, add, subtract, multiply, divide)
- q. Complex numbers (simplify, add, subtract, multiply, divide)
- r. Solve equations containing radicals
- s. Functions (domain, range, graph, use vertical line test, add, subtract, multiply, divide, find inverse, do composition of functions)
- t. Rational expressions (simplify, multiply, divide, add, subtract, simplify complex fractions)
- u. Solve fractional equations (including application problems like work problems, uniform motion problems, proportions, variations, and literal equations)
- v. Solve quadratic equations (use factoring, completing the square, and quadratic formula)
- w. Solve equations that are quadratic in form
- x. Solve quadratic and rational inequalities
- y. Parabolas (find axis of symmetry, vertex, x-intercepts, graph)
- z. Exponential functions (evaluate, graph)
- aa. Logarithms (log notation, properties of logarithms, evaluate logs with and without a calculator, solve log equations, graph log functions using ordered pairs)