COURSE SYLLABUS GUIDE
Intermediate Algebra - Math 108
4 Credits

Semester/year: Spring 2007
Instructor: John Eilers
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I will usually be available for extra help before or after regular class times or you can call me.

1. Course Description: This course is to prepare the student with the necessary skills needed to continue on to College Algebra (Math 143). It covers first degree equations and inequalities, linear functions, systems of linear equations, polynomials, factorization, rational expressions, negative and rational exponents, radicals, quadratic equations, graphing functions, logarithms and application problems.

2. Pre-requisites: Math 010 with C or higher or Math Placement (Compass Algebra score of at least 41)

3. Required Textbooks and Supplies: Intermediate Algebra, Sixth Edition by Aufmann, Barker, & Lockwood, graph paper, a scientific calculator. (NOTE: Graphing calculators will not be allowed on tests)

4. Course Objectives: This course is to prepare the student with the necessary skills needed to continue on to College Algebra (Math 143). It covers first degree equations and inequalities, linear functions, systems of linear equations, polynomials, factorization, rational expressions, negative and rational exponents, radicals, quadratic equations, graphing functions, logarithms and application problems.

5. Outcomes Assessment:
   Students will master the course content through success in homework and exams.
   Apply knowledge in order to solve real world problems.
   A list of course objectives for CSI is included. You should have an understanding of these at the end of the course.
   As part of departmental analysis of outcomes in this course and its place in the Mathematics program, student completion of the prerequisite, success in the current course, success in subsequent courses and student satisfaction will be reviewed by the instructor. A report containing this information will be submitted by department faculty to determine what, if any, changes can be made to improve the course in terms of content, focus, and instruction.
   Measurement of a student’s success will be measured, primarily, by homework turned in, chapter tests and the final exam.

6. Policies and Procedures:
   Attend each class: If you miss too many classes you will probably not be able to keep up. If you get too far behind consider dropping before you pass the deadline and end up with an F on your transcript.
   Communicate: If you have a problem let me know.
   Take notes: I will do examples that you can use in solving problems that will be on your assignments.
   Do assignments: You need to practice doing problems in order to be successful. Most assignments cover material you will need at a later time so it is important to learn the material as we go along.
   Ask questions: You can ask questions during lectures or you can meet with me before or after class.
   Tutoring is available if you need extra help.
   Use your text: Examples are done in the textbook which you can use as examples. The book gives suggestions on how to study and get the most from what you do. Read your textbook before coming to class.
   Extra help: Tutoring sessions will be available. Signs will be posted. Work with other students.
   Videos: You may check out help videos from the business office.

7. Grading Practices:

Revised 8/03
There will be a test covering each chapter except that there will be only one test for chapters 9 and 10. Tests will be administered in the testing center and you will have several days to take each one. I will review each chapter with you in class before you take the test. Your homework grade will be equivalent to one test. There will be a comprehensive semester final administered in class on the final class of the session. This is a multiple choice, common final given to all students in Math 108. It will be equivalent to two chapter tests. I will drop the lowest of your chapter test scores or your homework average when computing your grade. If you miss a test it will be the one dropped. If you keep track of your grades during the semester you will know where your grade stands.

A  90% - 100% (I will round to the nearest percentage for your grade)
B  80% - 89%
C  70% - 79%
D  60% - 69%
F  below 60%

Homework: Problems will be assigned for each class session. I will collect and grade selected problems for each of these assignments. For full credit an assignment needs to be completed and turned in during the following class period. You need to show your work on each problem for credit. A late assignment will be worth half credit. (A late assignment means that it is turned in by the class period after which it was due.) You will receive a total homework grade from the best 20 of these assignments. There will be approximately 27 assignments so you will have ample opportunity to receive full credit for the number of assignments you need.

8. Topical Outline for the Course:
1. Rational numbers (addition, subtraction, multiplication, and division)
2. Variable expressions (simplify, translate, evaluate)
3. Set-builder notation and interval notation.
4. First degree equations in one variable (solve, translate from application problems such as coin and stamp problems, integer problems, uniform motion problems, investment problems)
5. First degree inequalities (solve and graph simple, compound, and absolute value inequalities)
6. Linear functions (evaluate, graph, find slope)
7. Find length and midpoint of a segment
8. Write the equations for lines (including parallel lines and perpendicular lines)
9. Solve systems of linear equations (use graphs, substitution method, addition method, Cramer’s rule, and Gaussian elimination with matrices)
10. Simplify exponential expressions having integer and variable exponents
11. Scientific notation
12. Polynomials (add, subtract, multiply, divide using long division and synthetic division, evaluate, factor
13. Simplify exponential expressions having integer and variable exponents
14. Scientific notation
15. Expressions with rational exponents (Simplify, change to radical form)
16. Simplify exponential expressions (simplify, add, subtract, multiply, divide)
17. Complex numbers (simplify, add, subtract, multiply, divide)
18. Solve equations containing radicals
19. Functions (domain, range, graph, use vertical line test, add, subtract, multiply, divide, find inverse, do composition of functions)
20. Rational expressions (simplify, add, subtract, multiply, divide, simplify complex fractions)
21. Solve fractional equations (including application problems like work problems, uniform motion problems, proportions, variations, and literal equations)
22. Solve quadratic equations (use factoring, completing the square, quadratic formula)
23. Solve equations that are quadratic in form
24. Solve quadratic and rational inequalities
25. Parabolas (find axis of symmetry, vertex, x-intercepts, graph)
26. Exponential functions (evaluate, graph)
27. Logarithms (log notation, properties of logarithms, evaluate logs with and without a calculator, solve log equations, graph log functions using ordered pairs)
9. **On-line course evaluation statement:**
   Students are strongly encouraged to complete evaluations at the end of the course. Evaluations are very important to assist the teaching staff to continually improve the course. Evaluations are available online at: http://evaluation.csi.edu. Evaluations open up two weeks prior to the end of the course. The last day to complete an evaluation is the last day of the course. During the time the evaluations are open, students can complete the course evaluations at their convenience from any computer with Internet access, including in the open lab in the Library and in the SUB. When students log in they should see the evaluations for the courses in which they are enrolled. Evaluations are anonymous. Filling out the evaluation should only take a few minutes. Your honest feedback is greatly appreciated!

10. **Disabilities:**
    Any student with a documented disability may be eligible for related accommodations. To determine eligibility and secure services, students should contact the coordinator of Disability Services at their first opportunity after registration for a class. Student Disability Services is located on the second floor of the Taylor Building on the Twin Falls Campus. 208.732.6260 (voice) or 208.734.9929 (TTY), or e-mail aflannery@csi.edu.
Mon. Jan. 15       Martin Luther King Day - No Class
Wed. Jan. 17      Orientation class, Section 1.1
Mon. Jan. 22      1.2, 1.3
Wed. Jan. 24      1.4, 2.1
Mon. Jan. 29      2.2 - In class review of Chap. 1
Jan. 30 - Feb. 5  - Take Test on Chap. 1 In Testing Center
Wed. Jan. 31      2.3, 2.4
Mon. Feb. 5       2.5, (2.6)
Wed. Feb. 7       3.1 - In class review of Chap. 2
                Feb. 8 - Feb. 14 - Take Test on Chap. 2
Mon. Feb. 12      3.2, 3.3
Wed. Feb. 14      3.4, 3.5
Mon. Feb. 19      President’s Day - No Class
Wed. Feb. 21      3.6, 4.1
Mon. Feb. 26      4.2 - In class review of Chap. 3
                Feb. 27 - Mar. 5 - Take Test on Chap. 3
Wed. Feb. 28      4.3
Mon. Mar. 5       5.1, 5.2 - In class review of Chap. 4
                Mar. 6 - Mar 12 - Take Test on Chap. 4
Wed. Mar. 7       5.3, 5.4
Mon. Mar. 12      5.5, 5.6
Wed. Mar. 14      5.7
                Week of Mar. 19 - Mar. 23 Spring Break
Mon. Mar. 26      6.1, 6.2 - In class review of Chap. 5
                Mar. 27 - Apr. 2 - Take Test on Chap. 5
Wed. Mar. 28      6.3, 6.4,
Mon. Apr. 2       6.5, 6.6
Wed. Apr. 4       7.1, begin 7.2 - In class review of Chap. 6
                Apr. 5 - Apr. 11 - Take Test on Chap. 6
Mon. Apr. 9       complete 7.2, 7.4
Wed. Apr. 11      7.5
Mon. Apr. 16      8.1, 8.2 - In class review of Chap. 7
                Apr. 17 - Apr. 23 - Take Test on Chap. 7
Wed. Apr. 18      8.3, 8.5
Mon. Apr. 23      8.6, 9.1 Review of Chap. 8
                Apr. 24 - Apr. 30 - Take Test on Chap. 8
Wed. Apr. 25      9.3, 9.4
Mon. Apr. 30      10.1, 10.2
Wed. May 2        10.3, 10.4,  Review Chap. 9 & 10
                May 3 - May 9 - Take Test on Chap. 9-10
Mon. May 7        In Class - Final Review
Wed. May 9        Semester Common Final to be taken during regular class time