Mathematics 108 - C05
Intermediate Algebra
Course Syllabus
4 Credit Hours

Fall 2008
Instructor: Constance Meade
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E-mail Address: cmeade@csi.edu
Office Hours: 12:00 - 12:50 MTF
8:00-8:50 W
Lab Hour: 12:30-1:00 TF
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Course Description:
This course is designed to prepare the student for college algebra. 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.

Pre-requisites:
Math 025/010 with a grade of "C" or better, or Math Placement Test. Current placement test score: COMPASS Algebra score (not Pre-Algebra) of 41 or higher. (Pre-requisites will be enforced.)

Required Textbooks and Supplies:
• A scientific calculator will be required for this class. A scientific calculator is determined by its ability to handle logarithms ($ln$, log), exponential functions, ($y^x$, exp) and statistics. A graphing calculator will not be allowed in this class.
• Pencil
• Loose leaf paper
• Graphing paper - http://www.mathematicshelpcentral.com/graph_paper

Expected Outcomes and Outcomes Assessment:
Outcome 1: The student will master course content as presented in lecture and assigned homework.
Assessment 1: The student will demonstrate their understanding of the material by completion of daily assignments. Student performance will be further measured by midterm exams and a comprehensive final exam.

Outcome 2: The student will apply mathematics to real world situations.
Assessment 2: The student will demonstrate this skill by completion of individual or group projects that require mathematical reasoning.

As part of departmental analysis of outcomes in this course and its place in the Mathematics program, student completion of the pre-requisites, 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 the department faculty to determine what, if any, changes can be made to improve the course in terms of content, focus, and instruction.

Policies and Procedures:
Attendance: Attendance may, or may not, be taken on a daily basis. However, you are expected to be in attendance each class period. If, for one reason or another, you are unable to attend, you will still be responsible for all material covered that day.
Hours of lecture each week: 9:00 - 9:50 Monday, Tuesday, Wednesday, & Friday in Shields 203

Homework: Homework will be assigned. It is expected to be completed at the beginning of the following class meeting, unless otherwise stated. This homework will be collected and graded on a random basis. You may be notified at the beginning or at the end of class on the day that it is collected.

No late homework will be accepted.

Your homework scores will be averaged, and this average will count as one test score. Always review your homework when it is returned. Check for grading errors and try to determine where you made your mistakes. Engaging in this activity will reinforce what you have learned.

Exams: Six exams will be given during the semester. There will be no make-up or re-take exams given. If you must miss one, that grade will be replaced by your score on the final exam. These may be given in the testing center.

Final Exam: The final exam will be comprehensive. This exam will be given on Wednesday, December 17, 2008 from 8:00 AM - 11:00 AM in Shields 203.

Grading: Your percentage will be calculated as follows: \[ \text{Your Total Points} = \% \]

Although I reserve the right to revise this scale downward, 90% of the possible points, or above, will always be and 'A', 80%-89% a 'B', etc.

Coverage: Chapter 1, Chapter 2 Sections 2.1-2.4, Chapter 3 Sections 3.1-3.4 & 3.6, Chapter 4 Section 4.1-4.3, Chapter 5, 6, 7, Chapter 8 Sections 8.1-8.4 & 8.6, Chapter 9 sections 9.1-9.5.

Cheating: See page 31 of the current CSI catalogue. A violation of the policy will be dealt with severely, including but not limited to, being dismissed from the class and/or given a grade of "F" for the course.

Cellular Telephones/Palm Pilots: These are expected to be turned off during class time.

General Classroom Behavior: See pages 31-33 of the current CSI catalogue.

Aids for the Course:

- **Study Groups** - If you need assistance forming a study group, I will gladly make assignments based upon your schedules. Being an active member of a study group is extremely important to your success in this class.

- **Instructional DVD's** - Instructional DVD's come with new textbook purchases, and they are also available for check out at the Library (GRM 202) and at the Outreach Centers.

- **Student Solutions Manual** - A Student Solution Manual comes packaged with the new textbook. These are not required, but some students find them very useful.

- **Instructor** - I have office hours scheduled on a daily basis. If you need to meet with me and cannot do so during those scheduled times, please feel free to schedule another time that is convenient for you.
Topical Outline:

a) Rational Numbers - addition, subtraction, multiplication, division
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 percent problems, mixture problems, business related problems, uniform motion problems, investment problems,
f) First Degree Inequalities - solve and graph simple, compound
g) Linear Functions - evaluate, graph, find slope
h) Find Length and Midpoint of a Segment
i) Write the Equations for Lines - including parallel and perpendicular lines
j) Solve Systems of Linear Equations - use graphs, substitution method, addition method
k) Polynomials - add, subtract, multiply, divide using long division and synthetic division, evaluate, factor
l) Solve Polynomial Equations by Factoring
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, used vertical line test, add, subtract, multiply, divide, find the inverse function, do composition of functions
t) Rational Expressions - domain, simplify, multiply, divide, add, subtract, simplify complex fractions
u) Rational Equations - solve, includes application problems like work problems, uniform motion problems, proportions, variations, and literal equations
v) Solve Quadratic Equations - use factoring, completing the square, and the 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 - logarithmic notation, properties of logarithms, evaluate logarithms with and without a calculator, solve logarithmic equations, graph logarithmic functions using ordered pairs.

Course Evaluation:

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](http://evaluation.csi.edu). Evaluations open up to 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 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!

Disabilities:

Any student with a documented disability may be eligible for related accommodations. To determine eligibility and secure services, students should contact Candida Mumford at Disability Services as soon as possible. Student Disability Services is located on the second floor of the Taylor Building on the Twin Falls Campus: 208.732.6260 (voice) or 208.734.9299 (Tdd). Candida Mumford can also be reached by e-mail at: [cmumford@csi.edu](mailto:cmumford@csi.edu).
E-Mail:

E-mail is the primary source of written communication with all CSI students. Students automatically get a CSI e-mail account when they register for courses. Messages from instructors and various offices such as Admission and Records, Advising, Financial Aid, Scholarships, etc. will be sent to the students' CSI accounts (NOT their personal e-mail accounts). It is the student's responsibility to check their CSI e-mail accounts regularly. Failing to do so will result in missing important messages and deadlines. Students can check their CSI e-mail online at http://students.csi.edu. At the beginning of each semester free training sessions will be offered to students who need help using their CSI e-mail accounts.

If you are logging into the computers for the first time, you will be forced to change your initial password. You will be encouraged to set up a Password Reset Manager profile in case you later forget your password.

Student username syntax:
- First 3 characters of Student's First Name (if less than 3 character, then as many as exist)
- Entire Last Name
- Birth Month and Birth Day in format MMDD

Initial password:
- First name initial (ALL CAPS)
- Last name initial (ALL CAPS)
- CSI Student ID (with leading zero's to make at least 6 characters; e.g., ID# 1257 would be 001257.)

Example:
Ron Weasley, ID 12345, COB 01/01/1985, SSN 123-45-6789
Username: ronweasley0101
E-mail address: ronweasley0101@students.csi.edu
Initial password: RW012345

It is the student's responsibility to drop this course.

During the first two weeks of the term, a student may drop a course or completely withdraw without its being recorded on the student's official transcript. After the first two weeks a "W" will be recorded in any course the student drops.

A student desiring to drop a course during the first two weeks of the term may do so on-line. In order to drop or completely withdraw after the first two weeks, the student must complete and submit a drop or complete withdrawal form to the Admissions and Records Office.
Homework Assignment Format  
Mathematics 108

1. Use loose leaf paper.

2. Write on the front side of the page only.

3. Do all homework in pencil. Work done in pen will not be graded.

4. **Show all work necessary to complete the problem.** A correct answer with insufficient, no, or incorrect work will receive no credit.

5. Circle your answer when possible.

6. Write legibly. If I cannot decipher your work, it will **Not** be graded.

7. **No** late homework will be accepted.

To submit:  
Fold entire document in half, lengthwise.

On the outside of the document, write
- Your name
- Course title and Section Number
- Chapter and Section number

**Example**  
Jane Doe  
Math 108-C05  
Section 2.3