Mathematics for Elementary Teachers
Mathematics 157-C02
Course Syllabus
3 Credit Hours

Fall 2007
Office: Shields 207-D
Office Hours: 12:00 - 12:50 MTF
1:00 - 1:50 W
Math Lab Hour: 1:00-1:50 Wednesday
Office Phone: 732.6809
1.800.680.0274 x 6809

Instructor: Constance Meade
E-mail Address: cmeade@csi.edu

Course Description:
This course covers problem solving, set theory, functions, numeration systems, integers, number theory, rational numbers, exponents and real numbers.

Pre-requisites:
Mathematics 143 with a grade of "C" or better (Pre-requisites will be enforced.)

Required Textbooks and Supplies:
- Mathematics Activities for Elementary School Teachers Sixth Edition by Dolan, Williamson, and Muri
- Pencils
- Loose leaf 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 this material by completion of weekly assignments. Student performance will be further measured by unit lecture 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.

Outcome 3: The student will be able to communicate mathematically.
Assessment 3: The student will write a paper explaining a mathematical concept. The student will provide a simple example of its use as well as a more complex illustration, if possible.

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 be taken on a daily basis. 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. See current catalogue regarding attendance.

Hours of lecture each week: 8:00 - 8:50 Monday, Wednesday, & Friday
Shields Building Room 208

Homework: Homework will be assigned. It is expected to be completed at the next class meeting, unless otherwise stated. This work 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 the previous week.

A random selection of problems will be graded from each collected assignment, with a total possible of 100 percentage points. This homework is designed to help you develop your mathematical skills. You must show all work necessary to correctly complete the problems, or no credit will be given.

Exams: Six regular exams will be given during the semester. The dates of these exams will be announced. These exams may be given through the testing center. There will be no make-up, or re-take exams given. If you must miss one of the exams, that score will be replaced by your score on the final exam. All exams will be closed book and closed notes.

Final Exam: The final exam will be comprehensive and will count as one regular exam. It will be given on Tuesday, December 18, 2007 in Shields Building, Room 208 from 8:00-10:00.

Calculators: Calculators will not be allowed during most of the exams.

Grading:

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<tr>
<th>Component</th>
<th>Points</th>
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<tr>
<td>Exams (6)</td>
<td>100</td>
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<tr>
<td>Homework</td>
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<td>Total Points</td>
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Your percentage will be calculated as follows: \[
\frac{\text{Your Total Points}}{8} \%
\]

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

Coverage: Chapters 1-7

Cheating: See page 14 of the current CSI catalogue. Any 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.


Cell Phones: Cell phones are expected to be turned off during class time.
Aids for the Course:

- **Math Lab** - The Math Lab is in Shields Building, room 207. Math Lab hours have not yet been determined. I will notify you of these as soon as I know what they are.

- **Digital Video Tutor** - These CD's came packaged with your textbook and are an excellent supplement to 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 can be extremely helpful.

- **Student Solutions Manual** - The students' solution manual ideally comes pre-packaged with the textbook. This contains detailed, worked-out solutions to all of the exercises that are answered in the back of your text.

- **Mathematical Reasoning for Elementary Teachers Videotapes**
  These videotapes are available for check-out through the Library and are an excellent supplement to the course.

- **Web site** [www.InterActMath.com](http://www.InterActMath.com) This interactive Web site provides algorithmically generated practice exercises that correlate directly to the exercises in the text.

- **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 set up another time that is convenient for you.

Topical Outline:

- Sequences
- Problem solving process
- Algebraic thinking
- Describing sets
- Set operations and their properties
- Operations of addition, subtraction, multiplication and division of whole numbers
- Functions
- Numeration systems
- Algorithms for whole-number addition, subtraction, multiplication and division of whole numbers
- Mental mathematics and estimations using whole-number operations
- Integers
- Operations of addition, subtraction, multiplication and division for integers
- Divisibility
- Prime and composite numbers
- Greatest common divisor and least common multiple
- Clock and modular arithmetic
- Rational numbers
- Operations of addition, subtraction, multiplication and division for rational numbers
- Proportional reasoning
- Decimals
- Operations on decimals
- Nonterminating decimals
- Percents
- Computing interest
- Real numbers
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. 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 Disability Services at their first opportunity after registration of 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).

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

Note 1: Mathematics is not a spectator sport. You must be actively engaged in the course work on a daily basis to be successful. Sporadic and/or occasional engagement most generally results in a failing grade for the course.

Note 2: I reserve the right to correct errors or omissions in this syllabus.
Homework Assignment Format

Mathematics 157

1. Use loose leaf paper.

2. Write on the front 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 little, no, or incorrect work will receive no credit.

5. Circle your answer when possible.

6. Write legibly. If the grader cannot decipher your work, it will not be graded.

7. Homework will be collected on a random basis, and a random number of problems will be corrected.

8. 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 157-C01
Section 7.3
### Homework Assignments

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### Exam Scores

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**Average:** _______

**Grade:** _______