Math 157: Math for Elementary Teachers I  
Spring 2010 – 3 credits  
MWF 3:00 p.m. – 3:50 p.m.

Instructor: Cindy Dickson, M.S.  
Office: Shields 207 C  
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e-mail: cdickson@csi.edu  
webpage: http://www.csi.edu/dir.asp?cdickson

Office Hours:  
MTWF: 2:00 – 2:50 p.m.  
TH: 10:00 – 10:50 a.m.  
Math Lab Tutoring in Shields 207: Friday 2:00 – 2:50 p.m.  
Office Hours also by appointment

1. **Course Description:** Problem solving, set theory, functions, numeration systems, integers, number theory, rational numbers, exponents and real numbers.

2. **Prerequisite:** MATH 143 grade of “C” or better.

3. **Required Textbook and Supplies:**  
c. **Scientific Calculator:** A scientific calculator will be used for specific chapters in the course.  
d. **Supplies:** Loose-leaf paper, three-ring binder, dividers, pencils, stapler.

4. **Course Objectives:** The student will demonstrate a working knowledge of the material covered in Chapters 1-7 of the textbook. The topics are listed in the course description above and a detailed list of topics is included in this syllabus under tentative topical outline.

5. **Outcomes Assessment:**  
**Students:** Daily assignments, chapter tests, and a comprehensive final exam will be used to assess how well students achieve the expected course outcomes. Exams as well as student evaluations will be analyzed to help improve curriculum and instruction for the course. Also, regular informal feedback will be solicited in an effort to improve the class as it progresses.

**Department:** As part of departmental analysis of outcomes in this course and its place in the Mathematics program, student completion of the pre-requisite, success in the current course, success in subsequent courses and student satisfaction will be reviewed by the instructor and the department chair. 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.

6. **Online Course Evaluations:** To help instructors continually improve courses, students are strongly encouraged to go online to [http://evaluation.csi.edu](http://evaluation.csi.edu) and complete anonymous evaluations which open two weeks before the end of the course and close the last day of class. When students enter the site, they find evaluations for their enrolled courses. Thank you for this valuable input!

7. **Policies and Procedures:**  
a. **Attendance** Attendance is essential to student success. If you miss a class, you are responsible for material discussed in class as well as any additional assignments and announcements made during class time.  
b. **Homework:** Assignments will be given daily and will be collected at the next class period. Be sure to read each section before attempting the homework. Late homework
will not be accepted under any circumstances. It will be given no credit if turned in after the due date & time listed. If you have a planned absence, you may turn homework in early. Your lowest 5 homework scores will be dropped.

c. Exams: Four exams and a comprehensive final will be given. Make-up exams will NOT BE GRANTED unless you have a medical excuse validated by a doctor or the consent of the instructor at least one week prior to the exam. Make-up final exams will NOT BE GRANTED UNDER ANY CIRCUMSTANCES. Your lowest test score can be dropped and replaced by your final exam score if it is to your benefit.

d. Academic Integrity: If a student is caught cheating on an exam or copying another student’s assignment, a student will be subject to a failing grade (0 credit).

e. Classroom Behavior: 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. Information regarding student Behavior Policies can be found on p. 34 and 35 of the C.S.I. catalog.

f. Other Policies: All cell phones and pagers must be turned off or to a vibrate mode during class. No children are allowed in class.

8. Grading Practices:
   a. Testing: All chapter exams will be given in the classroom during regular class hours (3 p.m. – 3:50 p.m.) on given days. The comprehensive final exam will also be given in the classroom.

   b. Evaluation:
      4 Exams: 400 points  90 -100%=A
      Group Project: 50 points  80-89% =B
      Homework: 100 points  70-79%=C
      Final Exam: 150 points  60-69%=D
      Total Possible: 650 points  Below 60% = F

     Students must score at least 60% on the comprehensive final exam to receive a course grade of C or higher.

c. It is the student’s responsibility to drop the 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 online. 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.

   If you stop attending the course and do not withdraw, you will receive an F in the course.
NOTE: No course may be dropped or withdrawn from after 75% of the course or twelve weeks of the term has elapsed, whichever is earlier.

9. 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. Students should contact the Student Disability Services Office at (208) 732-6260, (208) 734-9929 (TDD), or (800)680-0274 (Idaho &Nevada). Please refer to the College of Southern Idaho Catalog under “Student Disability Services” on pg. 38.

10. Student e-mail: Since email is the primary source of written communication with students, all registered CSI students get a college email account. Student e-mail addresses have the following format: <address>@eaglemail.csi.edu where <address> is a name selected by the student as a part of activating his/her account. Students activate their accounts and check their CSI e-mail online at http://eaglemail.csi.edu. Instructors and various offices send messages to these student accounts. Students must check their CSI e-mail accounts regularly to avoid missing important messages and deadlines. At the beginning of each semester free training sessions are offered to students who need help in using their accounts.

11. Where to get help:
   - Ask questions in class or stop by to see me during office hours – I’m here to help you!
   - Peer tutoring is available at...
     - Math Lab (SHL 207)
   - Study groups – I encourage you to be an active member of a study group. They can be extremely helpful.
   - Video Lectures on CD. These CDs come packages with your textbook and are an excellent supplement to the course.
   - Student Solutions Manual. This corresponds to the colored exercises in the textbook with worked out solutions and can be purchased separately.

12. Do not put off getting help! If you wait until you are totally lost, you might find it impossible to get back on track.

13. Keys to success in this class: Show up every day and pay attention; ask questions; practice by doing assignments and forming study groups; don’t quit!
14. Tentative topical outline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Section</th>
<th>Date</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 20</td>
<td>Syllabus, 1.1 Introduction to Problem Solving</td>
<td>Mar. 22</td>
<td>4.2 Tests for Divisibility</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>1.2 Polya’s Problem Solving Principles</td>
<td>Mar. 24</td>
<td>4.3 Greatest Common Divisors and Least Common Multiples</td>
</tr>
<tr>
<td>Jan. 25</td>
<td>1.3 More Problem-Solving Strategies</td>
<td>Mar. 26</td>
<td>Chapter 5 Activities</td>
</tr>
<tr>
<td>Jan. 27</td>
<td>1.4 Algebra as a Problem-Solving Strategy</td>
<td>Mar. 29</td>
<td>5.1 Representation of Integers, 5.2 Addition and Subtraction of Integers</td>
</tr>
<tr>
<td>Jan. 29</td>
<td>1.5 Additional Problem Solving Strategies</td>
<td>Mar. 31</td>
<td>5.2 Addition and Subtraction of Integers, 5.3 Multiplication and Division of Integers</td>
</tr>
<tr>
<td>Feb. 1</td>
<td>1.6 Reasoning Mathematically</td>
<td>Apr. 2</td>
<td>5.4 Clock Arithmetic</td>
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<tr>
<td>Feb. 3</td>
<td>Chapter 1 Review</td>
<td>Apr. 5</td>
<td>Chapter 4 &amp; 5 Review</td>
</tr>
<tr>
<td>Feb. 5</td>
<td>Chapter 1 Review</td>
<td>Apr. 7</td>
<td>Chapter 4 &amp; 5 Exam</td>
</tr>
<tr>
<td>Feb. 8</td>
<td>Chapter 2 Activities</td>
<td>Apr. 9</td>
<td>Chapter 6 Activities</td>
</tr>
<tr>
<td>Feb. 10</td>
<td>2.1 Sets and Operations on Sets</td>
<td>Apr. 12</td>
<td>6.1 Fractions and Rational Numbers</td>
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<tr>
<td>Feb. 12</td>
<td>2.2 Sets, Counting, and Whole Numbers</td>
<td>Apr. 14</td>
<td>6.2 Addition and Subtraction of Fractions</td>
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<tr>
<td>Feb. 15</td>
<td>President’s Day – No Class</td>
<td>Apr. 16</td>
<td>6.3 Multiplication &amp; Division of Fractions</td>
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<tr>
<td>Feb. 17</td>
<td>2.3 Addition and Subtraction of Whole Numbers</td>
<td>Apr. 19</td>
<td>6.4 The Rational Number System</td>
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<tr>
<td>Feb. 19</td>
<td>2.4 Multiplication and Division of Whole Numbers</td>
<td>Apr. 21</td>
<td>Chapter 7 Activities</td>
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<tr>
<td>Feb. 22</td>
<td>Chapter 3 Activities</td>
<td>Apr. 23</td>
<td>7.1 Decimals</td>
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<tr>
<td>Feb. 24</td>
<td>3.1 Numerations Systems</td>
<td>Apr. 26</td>
<td>7.2 Computations with Decimals, 7.3 Ratio and Proportion</td>
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<td>Feb. 26</td>
<td>3.2 Nondecimal Positional System</td>
<td>Apr. 28</td>
<td>7.4 Percent</td>
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<tr>
<td>Mar. 1</td>
<td>3.3 Algorithms for Adding and Subtracting Whole Numbers</td>
<td>Apr. 30</td>
<td>Chapter 6 and 7 Review</td>
</tr>
<tr>
<td>Mar. 3</td>
<td>3.4 Algorithms for Multiplication and Division of Whole Numbers</td>
<td>May 3</td>
<td>Chapter 6 &amp; 7 Exam</td>
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<tr>
<td>Mar. 5</td>
<td>3.5 Mental Arithmetic and Estimation</td>
<td>May 5</td>
<td>Final Exam Review</td>
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<tr>
<td>Mar. 8</td>
<td>Chapter 2 &amp; 3 Review</td>
<td>May 7</td>
<td>Final Exam Review</td>
</tr>
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<td>Mar. 10</td>
<td>Chapter 2 &amp; 3 Exam</td>
<td>Tues, May 11</td>
<td>Final Exam: 2 p.m. – 4 p.m. in classroom</td>
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<tr>
<td>Mar. 12</td>
<td>4.1 Divisibility of Natural Numbers</td>
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<td>Mar. 15-19</td>
<td>Spring Break</td>
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Homework Assignment Format
Math 157
Spring 2010

1. Use loose leaf paper
2. On the top right hand corner of the first page, include the following:
   - Name
   - Course title
   - Date
   - Section
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 final answer when possible.
6. Write legibly. If I cannot decipher your work, it will not be graded.
7. Do your work vertically (going down) instead of horizontally (going across).
8. Correct all colored problems using the back of the book. You may rework the problem until you get the correct answer, if possible. Write a "C" for correct by the problem number if it is correct, or a check mark √ if it is incorrect.
9. Staple all pages for each section’s homework assignment together.
10. No late homework will be accepted.

How to Access Outlines for Notes & Chapter Exam Answer Keys
2. Click to “View Personal Webpage”
3. Click on our class – Math 157 3 p.m.
4. Notes for each class lecture will be posted there, and answer keys for chapter exams will be posted after each exam. Click on any that you want to open and print from there.