Math 257: Math for Elementary Teachers II  
Spring 2007

Instructor: Connie Horgan  
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Course Description  
This course includes algebraic reasoning, functions, probability, introduction to statistics, geometry and concepts of measurement.

Prerequisite: Math 157 Math for Elementary Teachers I (C grade or better)

Course Objective:  
Students who complete Math 257 will become more effective teachers of elementary school mathematics by gaining a better command of mathematical knowledge and skills in both reasoning and problem solving. The students will become more positive about and confident of the mathematical skills involved in teaching.

Textbook:  

Course Content:  
Students will demonstrate a working knowledge of Chapters 8 – 14, with the following objectives:

- Reasoning algebraically, including the use of expressions, equations, function, and graphs.
- Statistics, including representation and interpretation of data using graphs, measures of central tendency and variability
- Empirical probability
- Theoretical probability, including principles of counting
- Plane geometry, including points, lines and line segments, rays, angles and relationship of angles in plane figures
- Curves and polygons in the plane and figures in space
- Networks and Euler’s formula
- Measurement processes in English and Metric systems
- Measurements and formulas for area, perimeter, surface area and volume
- The Pythagorean theorem and applications
- Transformations, symmetries and tilings
- Congruence principles and properties of triangles
- Construction of geometric figures
- Similarity principles and properties of triangles

How data will be used to revise the program and improve curricula:  
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. 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.

**Grading**

Grades are based on total points earned:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>5 Chapter Tests (100 points each)</td>
<td>500</td>
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<tr>
<td>5 Quizzes (20 points each)</td>
<td>100</td>
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<tr>
<td>Assignments (20 points each chapter)</td>
<td>100</td>
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<tr>
<td>Final Exam</td>
<td>200</td>
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<tr>
<td><strong>Total Points</strong></td>
<td><strong>900</strong></td>
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All quizzes will be taken during class time. Exams will be taken in the Testing Center located on the 2\textsuperscript{nd} floor of the Library Building. On the main campus, it is open Monday through Thursday, 8:00 am – 9:30 pm and Fridays 8:00 am – 5:00 pm. A student cannot start any exam after 8:30 on Monday –Thursday or after 4:00 on Fridays.

**Classroom Guidelines**

- Good attendance is critical to success in any math course. Therefore, it is expected that students will be in class, on time, every day. If an emergency arises making it impossible for you to attend, please call or e-mail a message.
- Exams will be taken in the Testing Center between the dates listed on the syllabus. Be sure to check the hours of the center. Students are expected to take exams during the open dates listed in the syllabus. Failure to make prior arrangements for taking exams in emergency situations will result in a 0 grade. The final exam will be given during class time.
- Students are expected to maintain good conduct during class, treating fellow students with respect and demonstrating a cooperative attitude toward the instructor. If there is a situation creating a problem for you in this class, please let me know so I can take steps to correct it.
- A student will be subject to a failing grade (0 credit) if caught cheating on any test or copying another student’s homework.
- All cell phones, pagers or beepers must be turned off during class time.

**On-line course evaluations:**

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 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!

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. CSI Student Disability Services is located on the second floor of the Taylor Building, 208-732-6260 (voice) or 734-9929 (TDD) or aflannery@csi.edu

Math 257
Math for Elementary Teachers II
Spring 2007

This syllabus is tentative and subject to change

January 17
Syllabus and Class Information
Section 8.1 page 479 1,3,4,10,11,16,28,29

January 24
Section 8.2 page 489 1, 3-9, 14, 16
Section 8.3 page 512 1, 4, 6, 7, 10,11, 13, 14, 15, 18, 19, 27
Quiz #1 (Section 8.1)

January 31
Review Chapter 8
Homework for Chapter 8 due
Section 9.1 page 538 1, 7, 8, 9, 11, 13
Section 9.2 page 561 1, 2, 5, 11, 12, 13

Test #1 Open January 31 – February 6

February 7
Quiz #2 (Sections 9.1 & 9.2)
Section 9.3 page 576 1, 3, 4, 5, 6, 7, 8
Section 10.1 page 601 5, 7, 12, 13, 18

February 14
Section 10.2 page 618 3, 6, 7, 12, 13, 14, 15, 17, 19
Section 10.3 page 638 4, 5, 6, 12
Review Chapter 9

February 21
Review Chapter 10
Homework for Chapter 9 & 10 due
Section 11.1 page 667 1, 2, 4, 5, 14, 15, 17, 18

Test #2 Open February 22 – February 27

February 28
Section 11.2  page 688  1, 2, 4, 7, 14, 15
Section 11.3  page 709  1, 2, 3, 4

March 7
Quiz #3  *(Sections 11.1 – 11.3)*
Section 11.4  page 722  1, 2, 6
Review Chapter 11

<table>
<thead>
<tr>
<th>Test #3  Open March 7 – March 13</th>
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<tbody>
<tr>
<td>Section 12.1  page 753  1, 10, 11, 12, 13, 17, 21</td>
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<tr>
<td>Section 12.2  page 769  6 – 13, 16, 17</td>
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*Homework for Chapter 11 due*

March 21  No Class

March 28
| Section 12.3  page 783  1 – 6, 11, 13, 28 |
| Section 12.4  page 803  1 – 7, 10 |

April 4
| Review Chapter 12 |
| Section 13.1  page 838  2,3,5,8,11, 12 |
| Section 13.2  page 853  1, 2, 3, 5, 6, 9, 10, 13, 14 |

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<thead>
<tr>
<th>Test #4  Open April 5 – April 10</th>
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<tbody>
<tr>
<td>April 11  <em>Homework Chapter 12 due</em></td>
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<tr>
<td>Section 13.3  1, 2</td>
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<tr>
<td>Review Chapter 13</td>
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April 18
Quiz #5  *(Sections 13.1 – 13.3)*
| Section 14.1  page 899  1 – 3, 6, 7 |
| Section 14.2  page 919  1, 4 |

April 25
| Section 14.3  page 934  1, 3 |
| Review Chapters 13 & 14 |

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<tr>
<th>Test #5  Open April 25 – May 1</th>
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<tbody>
<tr>
<td>May 2  <em>Homework Chapters 13 &amp; 14 due</em></td>
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<tr>
<td>Semester Review</td>
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May 9
| Final Exam |

Semester Review

May 9
| Final Exam |

Final Exam