ELU 308 933
MATHEMATICS FOR ELEMENTARY SCHOOLS
SPRING 2006

INSTRUCTOR: Mrs. Celine Przydzial
Lytle 119
610-683-4406
przydzia@kutztown.edu

OFFICE HOURS: Monday 10:00 AM–11:00 AM, 12:00 PM–1:00 PM
Tuesday 12:00 PM-1:00 PM
Wednesday 10:00 AM–11:00 AM, 12:00 PM–1:00 PM
Other times by appointment


CALCULATOR: TI-15 Explorer Fraction

PROJECTS:
1. Solutions for a Problem Set
2. Review of an Elementary Text
3. Activity Incorporating Children’s Literature
4. Fraction Activity
5. Manipulative Chart
6. Field Assignments

TESTS:
1. Thursday – February 9, 2006
2. Thursday – March 9, 2006
3. Finals Week Schedule
EVALUATION:  Tests – 70% of the final grade  
Projects – 30% of the final grade

Grading scale:  
90 – 100% = A  
80 – 89% = B  
70 – 79% = C  
60 – 69% = D  
0 – 59% = F

CATALOG DESCRIPTION:  
ELU 308 – Mathematics for Elementary Schools

This course is designed to prepare prospective teachers to teach mathematics to all children from preschool to grade six. Instructional strategies appropriate for various stages of intellectual development will be examined. Each prospective teacher will be placed in an elementary classroom for a portion of the semester to gain practical experience working with children.

STUDENT INVOLVEMENT:

In order to achieve success in this course the student must become actively involved in this course. One of the main goals of this course is learning to communicate mathematically – being able to share and explain mathematical concepts. This is achieved through reading, asking questions, giving answers, writing, discussing, exploring, solving problems, organizing information and interacting with classmates.

ATTENDANCE:

In accordance with University policy, students are expected to attend all class meetings. Attendance is taken at every class. Students are responsible for all work covered whether they are present or not. Tests missed due to absence cannot be made up unless the absence is legally excused. If excused, the make-up test will be given during the week of final exams.

DISHONESTY:

All students are expected to do their own work. Any incident will be dealt with harshly. Cheating will result in a zero being given for that work and possibly a failure for the course.
PROJECTS:

1. PROBLEM SET (due – January 31, 2006) – 60 points
   Record your methods and solutions to these problems based on the rubric that will accompany the problem set.

2. REVIEW OF ELEMENTARY TEXT (due – February 14, 2006) – 10 points
   Choose an elementary Mathematics Teachers Edition from the Curriculum Materials Center in the library. Pick a topic or concept from Geometry or Measurement that we discussed in class and relate how this was taught at a certain grade level. The word-processed report should include:
   a. name of concept (1 pt)
   b. grade level, name of text and page number (1 pt)
   c. explain how the concept was used and taught at this level (2 pts)
   d. give an example of a problem from the elementary text (1 pt)
   e. explain what manipulatives could be used to reinforce the lesson based on our class discussions (4 pts)
   f. list other features of the text (1 pt)

3. ACTIVITY (due – March 2, 2006) – 30 points
   Develop a classroom activity for a concept in Counting, Numeration or Place Value or Operations/Basic Facts incorporating a source from Children’s Literature. The word-processed report should include:
   a. name of concept (1 pt)
   b. grade level (1 pt)
   c. identify the children’s book and author (2 pts)
   d. write a brief summary of the book (5 pts)
   e. list standards addressed in the activity (2 pts)
   f. list performance objectives for the activity (4 pts)
   g. explanation of the activity, attach any handouts or worksheets that will be utilized (15 pts)

4. FRACTION ACTIVITY (due – March 9, 2006) – 10 points
   Find an activity utilizing a manipulative that could be used to teach a concept involving fractions. The word-processed report should include:
   a. source of activity: journal, textbook, internet with URL (1 pt)
   b. concept involving fractions: part-whole model, ordering of fractions, equivalent fractions, operations with fractions (1 pt)
   c. manipulative used: cuisenaire rods, pattern blocks, tangrams, fraction circle/bars, color tiles (1 pt)
   d. explanation of the activity and how the manipulative will be incorporated in order to teach the concept (4 pts)
   e. work out the activity with all answers included (3 pts)
5. MANIPULATIVE CHART (due Finals Week)
   Keep charts throughout the course identifying manipulatives and their topics that can
   be used to teach the concepts of: Geometry, Measurement, Counting, Place Value,
   Whole Number Basic Facts, Whole Number Algorithms and Fractions. You will
   need this to answer questions on Test 3.

6. FIELD ASSIGNMENTS (due Thursday of the sixth week of the Field Experience)
   A packet with assignments will be distributed prior to placement in an elementary
   classroom.

**COVERAGE SCHEDULE and READING ASSIGNMENTS:**
(Tentative)

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<tr>
<th>Week 1</th>
<th>Mathematics Education Timeline</th>
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<td>NCTM Standards, PA Standards</td>
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<th>Week 2</th>
<th>Problem Solving</th>
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<tr>
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<th>Week 3</th>
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<tr>
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<tr>
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<td>Place Value pp. 173-177</td>
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<td></td>
<td>Operations/Basic Facts pp. 140-143, 156-157, 161-167, 194-198, 204-209</td>
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<th>Week 7</th>
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<th>Week 8</th>
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<tr>
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<td>Decimals pp. 238-242</td>
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<td>Percents pp. 245-249</td>
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