MA 151 – Mathematics for the Elementary School Teacher II
Winter 2013   Course Syllabus

Class ID: MA 151 – Section 01 CRN # 10434   MA 151 - Section 02   CRN # 10435
Times: 9:00 – 9:50 a.m.   11:00 – 11:50 a.m.
Days: M W TH F   M W TH F
Room: WS 3806   WS 3806
Credits: 4 credits   4 credits

Instructor: JoAnn Buhl   office : WS 3802   e-mail: jbuhl@nmu.edu
Phone: 227-2020 (leave a message)

Office Hours: 8:00 - 8:50 a.m. M W TH F,   and 10 – 10:50 a.m. M W TH F. I am happy to arrange other times for an appointment. Simply catch me after class to set something up, or send an e-mail.

Prerequisites: MA 150 with a C or better.

Text: *Mathematics for Elementary School Teachers, fourth edition*, by O'Daffer, et al.

Course Description: Probability and statistics, and formal and informal geometry with measurement. We will be attempting to cover chapters 10, 11, and 12 (geometry and measurement), and chapters 8, and 9 (data, statistics, and probability).

Attendance: You are expected to attend class each day and are responsible for the material covered on that day. This class has lots of in-class activities and homework that will be collected on a daily basis.

That said, people DO get sick, and other obligations may come up. To account for this, a total of 4 class periods/assignments may be missed (but **not** made up for credit). After 4 misses, your overall grade will be docked 10% for each day missed. This class has lots of in-class activities and homework that will be collected on a daily basis, so attendance is very important.

Homework: Will be assigned daily. The best way to learn mathematics is by doing it yourself, and that requires steady, consistent effort. For each hour in class, you should be doing an equal amount of time out of class practicing the problems.

Grading Methods: There will be four tests, daily in-class work, homework, presentations, and a comprehensive final.

Final Exam: Wednesday   May 1,   8:00 – 9:50 a.m.   (section 01)
                       Thursday   May 2, 10:00 – 11:55 a.m. (section 02).

Computers and cell phones: Unless otherwise noted, computers will **NOT** be used during class time. You may occasionally need to use your computers to research various topics outside of class. Any time computers will be needed in class, you will be given advance notice. The same goes for cell phones. Computers and phones should be put away in your backpacks during class time.

Grades: Your grade will be based on the percentage you achieve of the following scores:

Grading Scale:

				Grading Scale:	
Homework	(21.4%)	:	150 pts		
In class work					
presentations					
Test 1	(14.3%)	:	100 pts	90% and up	A's
Test 2	(14.3%)	:	100 pts	80% - 89%	B's
Test 3	(14.3%)	:	100 pts	70% - 79%	C's
Test 4	(14.3%)	:	100 pts	60% - 69%	D's
Final	(21.4%)	:	150 pts	Below 60 %	F

TOTAL POINTS: 700 pts

There are no make-ups on homework or in-class activities. You are certainly encouraged to make them up on your own to prepare for the tests! Tests may only be made up with a documented, validated excuse.

***   Extra Help: Math Tutor Lab.   West Science 3810.   ***
***   M – TH 9 - 4   and   F 9 – 3   ***
***   All Campus Tutoring.   Learning Resource Center 111H.   ***
**   S – W   2 – 10:00 p.m.**

ADA Statement: If you have need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C.B. Hedgcock Building (227-1700). Reasonable and effective accommodations and services will be

provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

Student Learning Outcomes for MA 151, Mathematics for Elementary Teachers (II)

Winter Semester 2013

Upon successful completion of this course, the student should be able to:

- Identify and categorize plane and three-dimensional figures, based on their properties.
- Apply logical arguments and formal proofs through the use of inductive and deductive reasoning.
- Use the definitions of congruency and similarity to compare and contrast pairs of objects.
- Combine and apply different types of transformations to a geometric figure and predict the result.
- Develop proficiency in using both the metric and English systems of measurement, and be able to convert between the two.
- Concretely examine perimeter and area and solve problems involving these properties.
- Concretely examine the concepts of surface area and volume of three-dimensional objects and solve problems involving them
- Use the Pythagorean
  Theorem discovered in the study of right triangles to develop the distance and midpoint formulas. Apply these formulas to find the lengths of objects superimposed on a coordinate system.
- Demonstrate an understanding of experimental probability and apply the concepts of theoretical probability and simulation to the design and solution of probability problems.
- Make and use various statistical graphs to describe and summarize data.
- Examine the clustering and dispersion of data and relate these to the "normal" distribution.
- Solve problems in probability and statistics.

Evaluation of these learning outcomes will be measured through:

- In-class group work
- Homework assignments
- Individual presentations, and
- Exams