Syllabus
MA 353 Methods and Materials in the Teaching of Elementary School Mathematics

Instructor: Jane A. Jamsen (jjamsen@nmu.edu)

Meeting Times, Days, Locations:

Section 1: 8-10:40 A.M., Wed., WS 1706 (first 1-2 weeks)
Sandy Knoll School (remainder of semester)

Section 2: 8:40-11:20 A.M., Mon., WS 2806 (first 1-2 weeks)
Aspen Ridge School (remainder of semester)

Office: NSF 1113, 227-1603
Hours: As posted and by appointment

Objectives: To explore various methodologies for teaching topics in elementary school mathematics and to fully examine the K-8 mathematics curriculum as specified in the *NCTM Principles and Standards* and the *Michigan Curriculum Frameworks.* Technology will be explored and aspects of classroom management will also be addressed.

Requirements:

1. Attendance is absolutely necessary. If you must miss a class, you are responsible for calling and leaving a message or emailing me. (I expect that week's assignment within 3 days of the absence.) If requested, I will e-mail the new assignment to you so that you keep current with the work. One or more unexcused absences may result in a grade of "F".

2. For most of the semester, the class will be held at elementary schools. We will have approximately 1 hr. and 40 min. of class time and 1 hour of observation time each week. During our class time, I expect you to fully participate in class discussions and groupwork activities. For observation time, you will select a specific grade level, and although somewhat dependent on availability, will spend the semester in that classroom with the teacher and the children. Your active participation in that classroom is encouraged - you may assist groups of children or work directly with a child having difficulty, for example. I do expect you to dress and act professionally at all times while at the school.

3. You will teach at least 1 lesson, which may be double-counted and coordinated with either the science methods course or the children's literature or reading course in the block. You must submit a lesson plan to me, and to the classroom teacher, before you teach and it should include at least the following:

    a. goals/objectives of the lesson;

    b. grade level for which lesson is geared;

    c. prerequisite skills required;

    d. general outline and description of the lesson/activity;

    e. plan for evaluating the students' work

    If you develop a worksheet or use another resource, please submit that along with your lesson plan.

    I will try to observe your lesson and/or learning center, as the schedule permits. I will also provide some feedback to you, in written form. My comments will be based on the following criteria:

a. evidence of thorough planning;

b. your teaching performance;

c. the professional image you project;

d. student response

4. Throughout the semester, you must keep a journal of these classroom experiences. To assist you, I will give you a guideline for the first day of observation. I do expect you to write a reflection on the lesson you conduct in the classroom. This will be your journal entry for that day. Generally, you are to document the methodology of the teacher, the content of the lesson and other pertinent experiences with the children. I will collect these journals after mid- semester and again at the end of the semester to peruse your entries. I do expect you to write a reflection on the lesson you conduct in the classroom. I will collect these journals around mid-semester and again at the end of the semester to peruse your entries. The journal is worth 30 points.

5. You will be required to do outside readings, textbook analyses and analyses of videotapes by Marilyn Burns and also work with computer software available in the Seaborg Center. Written assignments will be given, typically worth 5-15 points each, and will be collected at the next class meeting. Assignments will be accepted one day late without penalty. After that time, points will be taken off systematically. In-class assignments, based on activities with manipulatives, may also be given and will be collected on the day of the activity.

6. One of the main projects for the semester is the writing and illustrating of a children's "tradebook." More details will be given 2-3 weeks before the assignment is due (which will probably be in early March). You may want to consult with other instructors in the block since it is possible to double count this assignment. The project is worth 20 points.

7. The final project of the class will be your personal "field experience folder" (20 points). The main components will consist of:

   a. "Attitudes Towards Math" paper;

   b. "Expectations" pages from the *NCTM Principles and Standards document;*

   c. journal entries;

   d. text analyses and class assignments;

   e. e) class handouts and resources;

   f. f) a reflection on the semester.

   I will collect the folders the week before final exams so that I may grade them and return them to you at the final class meeting during exam week.

Text: Elementary and Middle School Mathematics. Teaching Developmentally, 4th ed., by John A. Van DeWalle.

Material to be covered:

The course will be structured around "Themes", largely reflecting the material in Chapters 1 through 23, and the K-8 curriculum. The order in which topics are covered may vary from the chronological order given in the text.

Grading: A-F, as follows:

90 - 100 A's
80 - 89 B's
70 - 79 C 's
60-69 D's
Below 60 F

Note 1: Take advantage of my office time to seek help and/or resources as needed.

Note 2: If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 1104 University Center (227-1737). 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.

Note 3: The videotapes you will be required to view are located in the Seaborg Center Resource Rm., West Science 2609. They are also on reserve at the main desk of the Library.