

**Math 353: Methods and Materials in the Teaching of Elementary School Mathematics  
Fall Semester, 2002**

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**Brief Description of the Course:**

This is a course designed to acquaint prospective elementary teachers with contemporary methods and materials employed in the teaching of mathematics in the elementary school. We do this by exploring methodologies for teaching a variety of topics. Topics and methodologies are consistent with those of the *Michigan Curriculum Frameworks* and the National Council of Teachers of Mathematics' *Principles and Standards for Teaching Mathematics*.

A few minutes reflection will make it obvious that this course cannot teach you how to teach each and every topic in the K-8 math curriculum. The goal is to help you develop the ability to use various curricular materials to plan lessons that you will teach using methods you deem appropriate. Naturally, I have views on ways to teach. These views are based on the documents listed above. The course will rely on such methods.

**Prerequisite:** Admission to the methods phase of teacher education; MA 150 and MA 151.

**Text:** Van de Walle (2001). *Elementary and Middle School Mathematics*, 4th Edition. Longman

**General Requirements:**

- Professional behavior and attitude at all times:
  - Ask questions rather than pass judgments
  - Have a spirit of cooperation and support with your peers, cooperating teacher, and me
  - Show a genuine interest in
    - learning the subject matter
  - Demonstrate a sincere interest in the needs of elementary students
  - Make every effort to be a valuable member of both our class and that of your cooperating teacher
  - Use clear, grammatically, and mathematically correct language
  - Respect others' privacy
  - Reflect excitement about teaching and learning
- For most of the semester, Wednesday class sessions will meet at Sandy Knoll School. You will check in with me & then go to your assigned classroom. There, you will be expected to participate in the manner the teacher specifies. This may mean observing and taking notes, helping a specified child or group, helping whoever needs help, etc. This will be negotiated between yourself and the teacher and may change from week-to-week. *If you have concerns about your role in the classroom, see me immediately.*
- Professional attire in Sandy Knoll elementary school. At minimum, this means no shorts or blue jeans. Also, you will wear a badge (that I will supply) identifying you & your affiliation at all times in Sandy Knoll.

- On Thursdays we will: explore some mathematics in a way consistent with the *MI Frameworks & the NCTM Standards*; discuss readings from the text; watch videos; discuss our experiences at Sandy Knoll; and other appropriate activities.
- Attendance at all class sessions.
- Participation will be an important part of your grade. This means that you must be on time and prepared (read assignments, prepared materials, completed journal entries, etc.) for all class sessions. There will be times when we work individually, in small groups, or as a whole class. You will be expected to participate in all types of work to help develop all of our understanding of teaching mathematics in the elementary school.
- The Michigan Council of Teachers of Mathematics is holding its annual meeting here on campus on Oct. 10, 11 and 12. Over 100 speakers from all over the country will offer sessions and workshops for area educators. Attending the conference is a requirement of this course. The registration fee is reasonable for students and, if you volunteer to work for 3 hours (and we have many volunteer slots to fill!), you will qualify for reduced registration fees. There will be one or two class assignments related to the conference.

**Assessment** (details will be provided in class as necessary):

- Attendance and participation. (50 pts)
- A journal of your elementary classroom experience across the semester. The first journal entry will have specific questions to which you will respond. Journals will be collected **without notice** once or twice during the semester. (50 pts)
- Teaching of at least one lesson observed by your cooperating teacher and myself. At least 2 weeks prior to teaching, you will submit a lesson plan for which I will give you feedback. Grading will be on the plan (revised as necessary depending on feedback) not the actual teaching. (50 pts)
- Production of a “trade book” that you will write and illustrate. (50 pts)
- You will be assigned readings from the text, preparation of materials, and various other out-of-class work. For most of these, you will be required to write up some kind of analysis or reaction. (100 pts)

[Note: You may design any assignment to double-count with another course in the block—but it is *your* responsibility to make sure it meets the criteria of the instructors of both courses.]

Feel free to contact me (in my office, via e-mail, before/after class, etc.) when you feel you need help. I have resources that I am willing to share. Do **NOT** wait till the last minute (the day before you will teach or a major assignment like the trade book is due) to seek help!

Grades will follow the following scale:

A	93-100 percent	A-	90-92 percent		
B+	88-89 percent	B	83-87 percent	B-	80-82 percent
C+	77-79 percent	C	70-76 percent	C-	67-69 percent
D	60-66 percent	E	below 60 percent		

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.