Required Texts and Materials


Reading Reflections
Because this is the first semester of your master’s degree program, I want to support the development of graduate-student habits that might serve you in this program and in your future if you choose to pursue subsequent studies. You will be reading many papers during the next 2 years, and organizing your notes of these readings will prove helpful. Every week you will have assigned readings. For each reading, I would like you to provide a complete bibliographic reference using the APA style and write an article summary. The summaries will vary in length depending upon the type of article, but, in general, you might consider somewhere between ½ and 1 typewritten page for articles, and one paragraph for shorter pieces. The summary should include those ideas that you would like to remember if you reread the summary in the future. After writing the summary, you are welcome to include any of your thoughts about the article. Clearly distinguish the ideas that were presented by the authors and your comments about the article. If your summary includes a quotation from the article, place the quote within quotation marks and include the page number for future reference. Please submit typewritten work.

In addition to your reflections to be handed in, on 3 occasions sign up to be a submitter. The other weeks you are to be a responder.
Submitter (Due Friday night at midnight)
Post on Blackboard a reflection about the readings. Write a question about that which stood out for you or that extends the ideas or connects the ideas to something else we have discussed. If you want to write a question related to practice, feel free to do so, but then write a second question that delves into the key ideas promoted in the reading.

Responder (Due Sunday night at midnight)
Post on Blackboard a response to one of the submitter posts. Rather than simply giving an opinion (“I agree” or “I disagree”), add substance by drawing connections among different posts, among past readings, or among ideas we have discussed in class. Although the major role of a responder is to respond to posts by submitters, you may also comment on posts by responders.

Grading: To earn a reading grade of B, sign up and submit on 3 occasions and respond on the other occasions. You may skip one response. To earn a reading grade of A, your three submissions ought to be thoughtful posts that show you have read and been grappling with the ideas. A post that one could have submitted before doing the reading will not be considered thoughtful.

Classroom Investigations
The purpose of these assignments is to encourage you to apply what you learn in class by working with one or more of students to develop a deeper understanding of children’s mathematical thinking while learning to extend children’s understanding and then to reflect upon the experience. For each investigation, you will write a brief report, summarizing and analyzing the experience. However, on one occasion of your choosing, report more fully on the classroom investigation, limiting your write-up to between 3-5 typewritten pages. Below are three types of investigations.

Individual Student Investigation
Select one or more tasks that we used in class or that we read about and modify the task (or tasks) so that it is appropriate for your students. Plan three or four follow-up questions you might use during your assessment, pose the task to two students individually, and either take notes during the sessions or audiotape the sessions. You may find that the original task was easier or more difficult for each child than you anticipated. You may find that your follow-up questions helped you learn some things, but not other things, about the child. Your report should contain your initial task and follow-up questions, a description of each child and the child’s responses to your questions, and your analysis of the experience. When relevant, incorporate ideas from the readings or class discussions into your analysis.

Small-Group Student Investigation
Select one task that we used in class or that we read about and modify the task so that it is appropriate for your students. Plan follow-up questions you might use during your investigation, pose the task to a small group of students, and either take notes during the session or audiotape the session. When working with a small group, you will have students at different levels of understanding and so you will encounter the challenge of trying to
attend to each student’s reasoning. Try to orchestrate the session so that students listen to one another’s thinking, but be prepared for the possibility that some students may not understand all the solutions that are shared. Your overall goal for the session should be to engage the children in rich mathematical thinking; help the students recognize that they can learn to share their reasoning and listen to other solutions; and engage in a positive, respectful problem-solving interaction with the students. When relevant, incorporate ideas from the readings or class discussions into your analysis.

**Whole-Class Investigation**
Select one task that we used in class or that we read about and modify the task so that it is appropriate for your students. Plan follow-up questions you might use during your assessment and pose the task to your class. Taking notes during the whole-class discussion may be difficult, so you may need to audiotape the session. Your report should contain your initial task and follow-up questions, your view of how successful the lesson seemed, and your analysis of the experience. Compare this lesson to one of your typical lessons.

**Essay**
Once this semester you will write an essay in which you will analyze and synthesize a portion of the readings from our class. The essay should draw heavily from the readings, and you should cite the readings in your work. You may also draw upon classroom activities, classroom discussions, and video clips for these essays. This essay will provide an example of the qualifying examination you will take at the end of your first year of study.

**Grading Policy**
I hope that we all recognize that grades are designed to reflect what one *knows* and what one has *learned*, but they do so inadequately. All grading systems are subjective, even those that are based solely on objective tests. But I do not want grades to interfere with your learning in this course, and I know how important grades are to some people, so I have decided that if your work is less than acceptable on any assignment, I will let you know so that you may redo the assignment. Because this is a graduate course, students are expected to maintain at least a *B* average. Therefore, if you turn your work in on time, you may assume that, unless I speak to you, I consider your work to be thoughtful and you are maintaining a passing grade. To earn an *A*, you should consistently grapple with the ideas at a deeper level, and I will expect this to be reflected both in your submitted work and in your comments during class discussions. Two examples of ways that you might indicate that you are grappling with ideas at a deeper level are that you draw connections between the readings and that you consider implications for your own teaching.

We learn not only from the readings and from the instructor, but also from our fellow students. For this reason, attendance and participation are essential in this class, and I will consider your classroom participation in your final grade. I recognize that situations arise that might require you to miss a class, so everyone is allowed one absence without penalty so long as you turn in the homework assignment in a timely fashion. If you are absent more than once, it is your responsibility to speak to me to determine whether you need to do anything to make up the
absence. If you do not speak to me, your final class grade will be deducted half of one grade for every absence after your first.

Most of you are currently serving as full-time teachers while enrolled in two graduate courses, so I know how busy you will be this semester. However, I have found that students with your busy schedules who fall behind find catching up to be very difficult. Furthermore, if you come to class without having completed the weekly readings, you will not be able to contribute thoughtfully to our class discussions. For these reasons, I would like to encourage you to keep on schedule. I will note assignments that are turned in late, and if you consistently turn in late work, your final grade will be lowered. I understand that life presents circumstances for which we cannot plan, so please come speak to me if you find that you are having difficulty keeping up with the work. I will do what I can to work with you.

**Cell Phones and Computers in Class**

I’ll give you a break each day, at which time you may turn phones on and check messages, or you may check other electronic media. You may use a computer in class if it is for instructional purposes. Otherwise, I would prefer if we did not use phones or computers during class. I realize that it is normal for people’s attention to wander, but if you find yourself not attending during class, I would prefer if you would at least look as though you are attending so as to maintain a positive and productive learning environment.

**Special Needs**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that accommodations based upon disability cannot be provided until you have presented your instructor with an accommodation letter from Student Disability Services. Your cooperation is appreciated.
# Assignment Due Dates

## Assignment #1, August 25 – September 1

- Short Essay: Philosophy of Teaching or of Mathematics/Science Teaching

## Assignment #2, September 4– September 11

- Reading Reflections
- NO SUBMITTERS OR RESPONDERS

### Readings

- Read the syllabus (No summary required) If you have any questions or comments about they syllabus, e-mail them to me


## Assignment #3, September 11 – September 15

- Reading Reflections
- Submitters and Responders? (To be determined)

### Readings


- Classroom Investigation Example By Stephanie Peterson (Reproduced with permission)

Assignment #4, September 15 – September 22

• Reading Reflections
• Submitters and Responders

Readings

• IMAP Story 5

Assignment #5, September 22 – September 29

• Classroom Investigation #1
• Reading Reflections
• Submitters and Responders

Readings


Assignment #6, September 29 – October 6

• Reading Reflections
• Submitters and Responders

Readings


### Assignment #7, October 6 – October 13

- Reading Reflections
- Submitters and Responders

**Readings**


- IMAP Story 3

### Assignment #8, October 13 – October 20

- Reading Reflections
- Submitters and Responders

**Readings**


### Assignment #9, October 20 – October 27

- Classroom Investigation #2
- Reading Reflections
- Submitters and Responders

**Readings**

Assignment #10, October 27 – November 3

- Reading Reflections
- Submitters and Responders

Readings


Assignment #11, November 3 – November 10

- Reading Reflections
- Submitters and Responders

Readings


Assignment #12, November 10 – November 17

Essay Due

Assignment #13, November 17– November 24

- Reading Reflections
- Submitters and Responders


- Faber, A. & Mazlish, E. (1999). Chapter 5, Praise, in *How to Talk so Kids will Listen and Listen so Kids will Talk*, 171-197. (reader, 95-121)
Assignment #14, November 24–December 1

- Classroom Investigation 3

Assignment #15, December 1 – December 8

- Final Assignment – Create a Concept Map, connecting various ideas this semester to the ideas in the summary chapter by Fuson et al.