

Attendance: Attendance and participation are essential in this class, both for you to learn and so that others may benefit from your input. Attendance is expected because most of class time will be spent on group discussions and activities. The ideas and concepts presented cannot easily be transmitted through class notes. You are responsible for all announcements made in class even if you are not there. It is important that you arrive promptly. Absences and tardiness will affect your professionalism grade (-10 points for unexcused absence; -2 for excused). Any exceptions to attendance and punctuality should be discussed with me *in advance*.

Assignments: It is expected that you will do your assignments on a word processor unless I indicate that an assignment may be handwritten. Any other exceptions must be cleared with me in advance. It is important to note the following...

***Assignments that are not typed will be returned without a grade.**

***Label each assignment with your last name and the assignment number.**

***I would prefer that you send me your assignments as an e-mail attachment.**

The requirements for all major assignments are detailed on the following pages. If you have questions about the purpose of the assignment or what is expected of you, please ask.

Late assignments will be assessed a penalty of 10% of the grade unless there are extenuating circumstances that are discussed with me **in advance**. You are expected to demonstrate correct use of the English language with regard to grammar, punctuation, and spelling. I do grade on technical writing skills as well as content.

Please proofread your work before turning it in to me. Written work will be assessed on the quality of your writing as well as your interpretation and understanding of course content.

Lesson Reflections/ Mathematics Journal:

You will be expected to keep a journal style notebook where you will record your impressions, suggestions, interpretations, and general opinions about specific assigned lessons plans. This notebook needs to be separate from your binder so you can turn it in on designated dates.

Course grades: Grades will be based on total points earned out of 300.

Assignments (see following pages)	240 points
*Professionalism	60 points
TOTAL	300 points

A= 270-300pts B= 240-269 C= 210-239 D= 180-209 F < 180pts

**Your grade for Professionalism will be based on arriving on time and being prepared for class (having read the assigned lessons), class participation (which includes both your contributions and your reactions to the contributions of others), your response to constructive feedback in the classroom and on written work, completing lesson reflections/journal assignments, and exhibiting a professional demeanor (language, attitude) toward others.*

University policies: All university policies with regard to withdrawals, academic honesty, etc. will be strictly followed. It is your responsibility to be familiar with these policies.

Tentative Schedule

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Date	Topic	Assignment due
Jan 7 th	Equity/Data Analysis	
Jan 14 th	Data Analysis	Glyph
Jan 21st	No Class- MLK Day	
*Jan 28 th	Data Analysis/GPS	
Feb 4 th	Fractions	Video Analysis
Feb 11 th	Decimals/ Money	Field Assignment (1)
*Feb 18 th	Money/Time	
Feb 25 th	Time	
Mar 3 rd	Measurement	Money/Time Task
Mar 10th	Spring Break	
*Mar 17 th	Measurement/ Textbooks	
Mar 24 th	Geometry	Measurement Lesson
*Mar 31 st	Geometry-Group work day	
April 7 th	Geometry Presentations	Field Assignment (2 & 3)
*April 14 th	Assessment	
April 21 st	Differentiated Instruction	Assessment Items
April 28 th	Problem Solving	Final Paper

***Journal due dates**

Assignment Due Dates Overview

Assignment	Points	Date Due
1. Glyph	25	January 14 th
2. Video Analysis	25	February 4 th
3. Field Assignments	30 (10 points each)	Feb. 11 th and April 7 th
4. Time & Money Tasks	25	Mar 3 rd
5. Measurement lesson plan	25	Mar 24 th
6. Geometry Presentation	20	April 7 th
7. Assessment items	30	April 21 st
8. Final Paper	60	April 28 th
* Journals/Professionalism	60	All Semester ☺

Assignment Descriptions

Glyph

Read the article distributed in class that further defines a glyph. Then design a glyph that you could use with a class of students (any grade level any topic). Include a brief explanation of how you would use this glyph with students and what you believe to be the benefits of conducting this type of activity.

***Please be sure to provide an example of what you expect the glyph to look like!**

DATA ANALYSIS

For this assignment, you will write a paper about the classroom discourse that occurs in the *Lady Bugs* videotape that we will watch in class. You may complete this assignment individually **or** in groups of 2, 3 or 4 people. If you choose to work with a group, you should turn in one paper with all of your names on it, and you will all receive the same grade for the assignment.

In your paper, you should **describe and evaluate the manner in which the lesson meets the standards for teaching identified by the National Council of Teachers of Mathematics**. I will distribute a copy of these standards in class. In addition, you should describe and evaluate the extent to which it meets the Georgia Performance Standards in Data Analysis for first grade. Lastly, please explain why you think this is or is not an example of an equitable classroom.

TIME & MONEY TASK

**CONTENT CRITIQUE WITH TEACHER*

Discuss the topics of Time and Money with your mentor teacher. **It is important to begin thinking about and talking with your mentor teacher the first week you are in the field.** Ask which topic they have more difficulty teaching, Time **or** Money. The difficulty can be either in teaching the topic or it can be in the student's understandings of the topic. Have the teacher elaborate on what the specific difficulties are with this topic (**either** time **or** money) and why they feel these difficulties exist.

You will need to provide a list of the specific questions that you ask your teacher along with a brief summary that includes the following:

What your teacher said, your own opinions about what the teacher has said, and why you agree or disagree with what they have addressed.

When appropriate site examples from texts or articles you have read to support your opinions.

Lastly, include a lesson plan that has 3-5 activities that address the difficulties mentioned by your teacher. Make sure to give your teacher a copy of the lesson plan/activities that you put together. You may use ideas we have discussed in class; suggestions that are in the Marilyn Burns text; or something from one of the many educational websites available. Two extremely good sources are <http://illuminations.nctm.org/> and www.glc.k12.ga.us/qcc/

Side note...Perhaps your teacher will let you try out the activities in class. If so then this could be used as one of the three **field assignments that you are required to do for EMAT 3410. If you are feeling creative and want to combine several of the options I have listed in the syllabus then here is an example of how to do it...*

1. Turn in the Time or Money lesson plan and conduct the activities
2. Use a children's book with the lesson that you are doing
3. Include 3 examples of students work; 1 below average, 1 average and 1 above average work

MEASUREMENT

**THIS IS A GROUP/TEAM WORK ASSIGNMENT*

I will read the book *Spaghetti and Meatballs for All* by Marilyn Burns in class. Together we will write a plan for a measurement lesson that includes this book. Then, working in groups, your team will be assigned a grade level (K-5). Your task will be to select a children's book that addresses a measurement topic taught in the grade level you are assigned and to write a lesson plan describing how you will use the book. The plan needs to be written in such a way that it can be used with a class of heterogeneously grouped students. It should also be thorough enough that a substitute teacher could pick it up and implement it successfully.

Instead of writing objectives for your lesson plan please include the following:

- What should students *know* at the end of this lesson? (e.g., facts, vocabulary)
- What should students *understand* at the end of this lesson? (e.g., concepts, ideas)
- What should students *be able to do* at the end of this lesson? (e.g., skills)

FIELD EXPERIENCE

During your field experience I hope that you will take advantage of every opportunity you have to observe mathematics being taught, to teach lessons yourself, to run math centers, and to assist individual children with mathematics. You will be asked to select 3 of the following 8 tasks to complete and turn in for a grade. **It is important to begin thinking about and discussing these choices with your mentor teacher on your Friday visits.** All 3 assignments will be due the week you return from your field experience (Oct 31st).

Option #1: Write a 500-word paper describing and critiquing the mathematical environment of your field experience classroom. Things on which you might comment include but are not limited to: visual displays in the classroom related to mathematics, learning materials available to students and how they are used, technology related to mathematics and how it is used, how students are grouped for mathematics instruction, how cooperation and competition are used during mathematics instruction, and when mathematics instruction takes place during the day. Compare and contrast this classroom environment with that of the classroom in which you interned in the fall.

Option #2: Teach a mathematics lesson (whole class, small group, center, calendar time). Turn in your written lesson plan and a 500-word reflection on the lesson. In the reflection include responses to the following questions:

- Was this a teacher-centered or student-centered lesson? (Some parts of the lesson may have been teacher-centered while others were student-centered. Articulate where these changes occurred.) Provide evidence to support your answer. (What happened in the lesson that was teacher-centered or student-centered?) Why was the lesson this way? (What obstacles or opportunities did you have in planning and implementing this lesson?)
- What would you do differently if you could teach this lesson again...?
 - a. In the same classroom?
 - b. In a different classroom?

Option #3: Read a children's literature book related to mathematics to your students. Use good instructional practices, such as reading with inflection, asking questions as you read, engaging students in predicting what will happen next, etc. Write a 500-word paper explaining why you selected the book, what mathematics you hoped to highlight, what happened during the discussion, and what you see as the value of using children's literature in mathematics.

Option #4: Prepare an activity for students to do at home with their families. The activity should relate to a topic your teacher is addressing during mathematics instruction or a topic on which the students need additional work. If at all possible, you should actually send the activity home with children and encourage them to do it with their families. Then talk informally with children who have done the activity at home. Turn in a copy of the activity and write a 500-word paper on how and why you designed the activity and any student reactions you were able to gather.

Option #5: Talk with your teacher about a mathematics topic that he/she believes to be a difficult concept for students to grasp, or a topic that the teacher has difficulty with/does not like teaching. Find a series of lesson plans that address this mathematics topic (you may get your lesson plans on the internet, from a book, or from a teacher) and discuss them with your teacher. Following the discussion write a 500-word critique about the lessons you chose. Include why the teacher believes this topic is so difficult and whether you think the lessons you selected addressed the concerns.

Option #6: Review student work from a particular lesson or activity. Provide copies of one piece of student work that shows a high level of understanding, one piece that shows a moderate level of understanding and one piece that shows a low level of understanding. Explain how you selected these pieces of student work and why you classified them as you did. (Remove students' names from the work before turning it in.)

Option #7: Write a case about a pedagogical dilemma you have or you see your mentor teacher have during mathematics instruction.

Option #8: Negotiate an alternative assignment with me if these assignments do not work in your field experience classroom or if you have a unique opportunity to do a different type of assignment.

ASSESSMENT

**THIS ASSIGNMENT IS TO BE COMPLETED WITH EITHER ONE OR TWO PARTNERS*

Go to the Georgia Department of Education web site and the section for released CRCT items (http://www.doe.k12.ga.us/curriculum/testing/crct_items.asp). Select 5 items and copy and paste them into a word processing file. For each item, identify the mathematical idea that is being assessed and write an open-ended version of the problem to assess *the same idea*.

Your items should reflect the characteristics of open-ended assessment that we discuss in class. In other words, do not simply take a multiple-choice computational item (such as $27 + 54$) and take away the choices to make it open-ended.

You may not use items from the web site that I demonstrate in class for this assignment.

You should make up your own open-ended version of the assessment items. In addition, for **one** of the items that you develop you should create an assessment rubric that describes...

1. what work that does not meet standards would look like
2. what work that meets the standard would look like
3. what work that exceeds the standard would look like

GEOMETRY

**THIS IS A GROUP/TEAM WORK ASSIGNMENT THAT WILL INCLUDE A GROUP PRESENTATION*

The teams will be decided in class. Once the grade level teams have been established then each team will select three geometry topics to explore. Your team will need to design a sequence of four activities/tasks for each of the three topics (you will compile a total of 12 activities). Each sequence should show a clear progression in the knowledge, skills, and understanding needed to successfully complete the tasks. Describe each activity in narrative form and in enough detail that a substitute teacher could conduct the activities successfully. If you adapt any activities from other sources (e.g., books, the web, articles), provide a citation for the original source. **Each group will need to provide a copy of the activities/lesson plans for all students in class.**

****The Geometry Group Presentation***

*Select one activity from **each** of the **three topics** to teach to the class.*

Your presentation should last between 20-30 minutes.

Everyone in your group must participate in the presentation.

You will have access to whatever material/ manipulatives we have in the math closet.

Be creative and have fun! ☺

REMEMBER...

Each group will need to either send an email attachment or make copies of all of the activities/lesson plans you compile so they can be distributed to all students in class.

FINAL REFLECTION PAPER

Consider your learning across MATH 5001, 5002, 5003, EMAT 3400, and 3410. (In other words, you are not restricted to what you have learned in this course.) Select one of the following ways to demonstrate what you have learned thus far:

- Select an assignment from an EMAT or MATH course that you would do differently today than when you did it initially. Redo the assignment and describe how/why it is different from your first attempt.
- Select 2 assignments from EMAT or MATH courses that show a contrast in your thinking (mathematical or pedagogical). Describe the contrast and what might have led to the change.
- Select a topic or an issue in mathematics education that you disagree with, find confusing, have questions about, or are unsure how you feel about. Carefully and thoroughly articulate your views, making reference to materials, texts, or experiences from courses as appropriate.
- **In detail**, explain how you used each component of the Reflective Teaching Model during your field experience. Include feedback about whether or not you thought it was an effective model, how you made modifications to it (or ones you would suggest making to it), and what aspects of it you will carry into your own classroom teaching.