

Math 170:Math for Elementary School Teachers

Spring 2006

Course Syllabus

Instructor: Beth Morris
Office: Padelford C-8-M
email: epmorris@math.washington.edu
Office Hours:MTh 1:15-2:15

Teaching Assistant: Emily Fagerstrom
Office: Padelford C-8D
email: efagerst@u.washington.edu
Office Hours: Th 10:30-12:30

Class Time and Place: MTh 2:30- 3:50 in MEB 103

Texts:

Mathematics for Elementary School Teachers , Third Edition, by Tom Bassarear.

Explorations , by Tom Bassarear.

A packet of notes available at Professional Copy, 4200 University Way, phone (206)634-2689.

Fear of Math: How to Get Over It and Get On With Your Life, by Claudia Zaslavsky.

Bring the packet of notes and Explorations with you every day to class.

Class website: www.math.washington.edu/~epmorris/math170.html

About Math 170: This is a math course intended for future elementary school teachers. There are three goals for the class. The first goal is to learn mathematics with an emphasis on understanding as opposed to memorizing tricks or learning rules without reasons. The second goal is to learn to communicate mathematics. Communication is learned through group work and homework, utilizing both verbal and written communication skills. It is for this reason that attendance is a requirement for this course (see below). The third goal is to learn to create mathematics. This is the true test of understanding and you will be challenged to create mathematics in this class and also in your teaching.

Course Credit THIS IS A CREDIT/NO CREDIT COURSE. To get credit you must have credit for each of the parts below. There are different standards as to what counts as credit for each piece.

Classwork: There will be some work assigned during nearly every class for you to work on, usually in groups. If your group makes a serious effort and hands in what I ask you to on time, you will each get full credit for that assignment. You need to get at least 80% of the classwork points to get credit for the classwork portion of this class. Note that this means you can miss at most 3 classes, not including the last day of class.

Homework: There will be individual homework due every day. The homework for each class will be a list of problems from the textbooks and occasionally some reading. We will check one problem in each assignment. You need to get at least 80% of the homework points to get credit for the homework portion of this class. You will be allowed to miss 3 homework assignments without penalty.

Note: You should not use these homework or classwork allowances lightly. They are for your use in case you get sick or other unforeseeable circumstances.

Projects: There will be two projects in this class. For the first project there are a few options. Be sure to tell Emily which option you will be doing by Monday, April 13th.

Project 1:The first page of the notes has more information on these two options.

Option A: Your first option is to tutor at a local elementary school. Your tutoring should be in the subject of mathematics. During your tutoring, you are to keep a journal. Your journal should consist of topics you tutored, what went well, what did not go well, what you will try differently next time, etc. I realize many of you are already tutoring and it is fine to use that for your journal. If you are not, there will be someone coming in from Pipeline to tell you how to get involved. If you are going to choose this option, you should get at least 8 weeks of tutoring in, so you should start as soon as possible. For more information, see the first page of the notes.

Option B: Your second option is to mentor students from Thoroughgood Marshall Elementary School who are participating in a Math Fair. This will take place on Tuesday afternoons, approximately 12:45-3:15 (including travel time), from May 9 to May 30 and the Math Fair will be Thursday, June 1 in the evening. Dr. Ginger Warfield will be in charge of this project and will be coming to give more information on Thursday, April 6th. During this project, you are also to keep a journal consisting of what you are doing, what is going well, what is not going well, what new strategies you are going to try, etc.

Option C: I realize that scheduling becomes a problem with each of the projects above. There will be a third option, but I'd like to wait until I know how many people need it before I assign it.

Project 2: There will also be options for the second project.

Option A: The first option is to read *Fear of Math* by Claudia Zaslavsky and write a one page response to it. This will be due Monday, May 15.

For this project, you should read the book *Fear of Math*, and write a one page paper. Projects should be word-processed or typed, not handwritten. See the class website for more information.

*Option B:*This project requires you to read one of the following articles and then create a short lecture on the material that will be appropriate for the class(about 2-4 pages). This assignment is to be done individually.

I would like you to read any one article from the 4 volume series "World of Mathematics" by James R. Newman. I have these on reserve in the Math Library (Padelford C-wing, 3rd floor). Almost all the articles are written for non-mathematicians and should provide you with some fun facts about mathematics. You may also be able to find some of these articles on the web.

Tests: There will be one midterm on April 20th during class. The final exam will be Tuesday, June 6, 2006, 2:30-4:20 in MEB 103. You must get at least 65% average on the tests in order to earn credit for this portion of the class.

Summary of Timeline for the Quarter:

There will be homework due nearly every day.

Thursday, April 20 Midterm

Monday, May 8 Project 1 first turn in

Monday, May 15 Project 2 due

Monday, May 29 No School

Thursday, June 1 Project 1 due

Tuesday, June 6 Final Exam, 2:30-4:20 in MEB 103