Math 391 Syllabus

Field Experience in the Mathematics of the Public Schools

General information:

Instructor: Andrea Nemeth

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The official way of communication is via CSUN email, so please, check your email often or forward your CSUN email to your other account you use.
Webpage: www.csun.edu/~an73773
Announcements, and assignments will be posted, so check my website often.
Office: Santa Susana Hall (SN), Room 434
Office Phone : (818) 677-2826 (Do not leave messages; send me an email instead)
Office Hours: Wednesday: 3:30-4:30pm, or by appointment

Required Book:

Connecting Mathematical Ideas by Jo Boaler and Cathy Humphreys
ISBN 978-0-325-00670-3.
The book is NOT available in the bookstore. You need to order it online. The cheapest site I know about is: http://www.heinemann.com/products/E00670.aspx
It costs $25 plus shipping. If you order the book from somewhere else, make sure the book has the CDs.

Course Outline:

You will spend 45 hours in a structured field experience in middle school or high school mathematics classes. You will focus your observations on the mathematical content of the lessons—investigating the mathematical knowledge that is required of the teacher, relating the mathematics to the content of your own mathematics courses at CSUN, and learning to interpret what sense the learner is making of the mathematics.

Additionally, there will be six **mandatory** meetings during the semester. The meeting times and place will be determined later.

During the meetings at CSUN, you will turn in your analyses of your field experiences and share your observations with other students. You will also turn in any additional assignments.

Course Requirements:

If you complete *all* of the course requirements listed below, then your grade will be Credit; otherwise your grade will be No Credit.

- *Participation and observation*. Observe and participate a minimum of 45 hours in the mathematics program of the school assigned to you. You will be at the school at least two days and four hours per week. You must maintain, on a daily basis, the *Record of Participation*. After completing 45 hours of observation and participation, have your supervising teacher(s) complete and sign the *Field Service Participation Form* (I will give you that form when you completed your hours). You must provide an envelope for the teacher to return the form, sealed, to you or mailed to me at the following address: Andrea Nemeth, Department of Mathematics, California State University Northridge, Northridge, CA 91330-8313.

- *Math 391 meetings and assignments*. Arrive promptly, prepared, and ready to participate for all six mandatory Math 391 meetings at CSUN. Complete the required reading, writing, and other assignments and turn them in at the beginning of each meeting. The assignments are available on my website. If you must miss a meeting, talk to me beforehand.

- *Reports on articles*. Prepare two reports on two articles from a paper, or book related to teaching mathematics, such as *The Mathematics Teacher*, or *Mathematics Teaching in the Middle School*. (Available in the library.)
  One of the articles should describe an activity that you could use to teach a topic in algebra or geometry. Write a brief summary of the activity and explain in what ways the activity would be helpful and in what ways it might fall short. Justify your opinion based on your Math 391 observations, reading, and/or discussions about how adolescents learn.

  The other article should further increase your own knowledge of the mathematics behind an algebra or geometry topic taught in secondary schools. Describe what you learned from this article and how it might be useful to you in teaching the topic.

- *Conference report*. Attend a conference for mathematics teachers such as CSUN's *Math Morsels* (fall) or the *LACTMA Conference* (spring). Write a brief summary of three sessions on the mathematical topic you are observing most often. Explain why you think the advice given by the speaker would be effective or not effective in helping students understand the subject matter. Justify your opinion based on your Math 391 observations, reading, and/or discussions about how adolescents learn.
  If you can't attend a conference, you need to report on one more article related to teaching Mathematics.