

M406A – Course Information for Spring 2008

Instructor of Record:

Dr. Rebecca McGraw

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Office Hours: Mon 1-2pm and 3-4pm (GS 829)

Wed 5:15-6:15pm (MathE 143)

or by appointment

Co-Instructor:

Joshua Chesler

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Required Materials:

- (1) Lappan, G., Fey, J., Fitzgerald, W., Friel, S., & Phillips, E. (2004). *Connected mathematics*. Glenview, Illinois: Pearson – Prentice Hall.
- (2) Access to *Principles and Standards for School Mathematics* (NCTM, 2000) via the web and other NCTM web resources. To become a student member of NCTM go to <http://www.nctm.org>, click on “Membership” and then Student E-Membership “Join Online.” Feel free to use my name and email as your professor. Subscribe to either “Mathematics Teaching in the Middle School” or “Mathematics Teacher” (high school) depending on whether your primary interest is in middle school or high school mathematics. NOTE: YOU WILL ALSO USE THIS RESOURCE FOR M406B IN THE FALL.
- (3) Various articles and other materials will be made available at no cost via <http://d2l.arizona.edu/> and/or the course website <http://math.arizona.edu/~rmcgraw/Math406aSp08.html>

Course Overview:

In this course you will deepen your understanding of the essential elements of the middle and high school mathematics curriculum, and of assessment methods. We will focus on curricula that emphasize: 1) student understanding of concepts and algorithms, 2) the development of multiple representations, 3) connections within and among concepts, 4) the development of reasoning and problem solving abilities, and 5) connections to the real-world. Important topics that we will cover include: proportional reasoning, variable, function, shape, measure, and probability. In addition, we will discuss a variety of assessment methods and how to use them appropriately to inform instruction and evaluate students’ progress.

Field Experience

As part of this course, you will spend approximately two hours per week in a high school or middle school classroom. In addition to working with individual students, you will have two opportunities to teach! The first lesson will be similar for all students. The second lesson will be one that fits into the curriculum of the teacher you are observing and at the same time is consistent with the themes and foci of this course. (more specifics on these activities later).

Policies and Grades

ATTENDANCE IS CRUCIAL. Excessive absences (defined as more than two unexcused absences) will result in an administrative drop from the course. Missed assignments/exams will result in a grade of zero unless we agree to other arrangements IN ADVANCE. I will accept late assignments for partial credit (50%) up to 48 hours after the due date/time.

Withdrawals

The last day to withdrawal without a grade is Tuesday, February 12, 2008. The last day to withdraw with a grade of “W” (if passing) is Tuesday, March 11, 2008. Before and after the 8th week, “passing work” and “failing work” are determined by the work completed to date and distributed percentage-wise as described under “Grading Scale.” Passing is a grade of D or better.

Grading Scale

Reading Responses/Participation = 20%

Assignments (2) = 30%

Midterm Exam = 20%

Final Exam and Field Work = 30%

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = 50-59%