

EMAT 4360/6360
Teaching and Learning in Secondary School Mathematics
EMAT 5360/7360
Secondary School Mathematics Field Experience
Spring 2008

Instructors
105 Aderhold Hall

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Also, other doctoral students may attend classes and will be available as needed.

Overview: We work from a belief that *mathematics for teaching* is different from mathematics for oneself, and that at its core, mathematics for teaching carries an implication for being prepared to teach *mathematics for all students*. Within this mathematical context we ask you to:

- work toward a critical view of your future classroom and your role within it.
- explore and develop tools to become the mathematics teacher you envision.
- become aware of tensions between current practices and practices promoting education of all students.
- consider advantages of working within a professional learning community and factors that contribute to or detract from such communities.
- challenge/broaden/deepen your mathematical understanding of topics in the high school classroom.

We will interact with practicing teachers and students in local high schools to:

- learn and practice critical observation (listening, feeling) of mathematics classrooms.
- challenge (develop) both experiential and theoretical images of mathematics classrooms through observation.
- consider the value and use of documents such as lesson plans, textbooks, state standards, and local curriculum guides.
- examine the secondary mathematics department structure as it relates to professional learning communities and understand your current and future role in such a community.

Course schedule: Mondays and Wednesdays, 1:30 – 3:15, 116 Aderhold
Tuesdays and Thursdays 12:30-1:45, 111 Aderhold
There will be exceptions to this schedule due to school visits.

Field experiences: You will visit local high schools on several occasions. Due to travel time and school schedules your afternoons must be open from 12:20–3:20 **daily (Monday–Friday)**. A schedule will be provided as soon as it is available. Dates will also be posted on the WebCT calendar.

Required texts

Kysh, J., Thompson, A., & Vicinus, P. (Eds.). (2007). Mathematical discourse [Focus issue]. *Mathematics teacher*, 101(4). (\$9.60)

National Council of Teachers of Mathematics. (2004). *Empowering the beginning teacher of mathematics: High school*. Reston, VA: Author. (\$23.16)

National Council of Teacher of Mathematics. (1999). *Mathematics assessment: A practical handbook for grades 9–12*. Reston, VA: Author. (\$27.16)

Additional resources (not required, but good to have in your professional library)

*National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: Author. (\$43.16)

National Council of Teachers of Mathematics. (2007). *Mathematics teaching today*. Reston, VA: Author.

Stein, M. K., Smith, M. S., Henningsen, M. A., & Silver, E. A. (2000). *Implementing standards-based mathematics instruction: A casebook for professional development*. New York: Teachers College Press.

Products that contribute to your course grade

EMAT 4360/6360 (A–F)

Class assignments 20%

Class participation 10%

(This category includes, but is not limited to, “Read & React” grades, required postings to the discussion board, and actual participation.)

Project 20%

Midterm 25%

Reflective portfolio 25%

Each of these components will be described more fully as the semester progresses.

EMAT 5360/7360 (S/U)

Daily work and class participation 25%

Field reports 40%

School visits 15%

Mini-project 20%

For 5360/7360 you must participate in all field experiences and submit satisfactory reflective field reports. These reflections will also contribute to your experiences in 4360/6360 and to your final portfolio.

EMAT 6360 and EMAT 7360 students should make an appointment to see their instructors within the first two weeks of the semester to discuss graduate-level assignments.

Notebooks

Each student should keep a notebook for the purpose of documenting class work and reflections. These notebooks are mainly for your record. Maintaining a complete record of your work will greatly facilitate completion of the reflective portfolio. (The final portfolio will require you to reflect on and document your growth throughout the semester.)

Submitting assignments

Assignments will be posted on the EMAT4360/5360 class Web page and are due on the date stated on the assignment. All written assignments must be typed and submitted through WebCT at webct.uga.edu. Please see Clay Kitchings (n4cnk@uga.edu) or your instructor if you have difficulty submitting assignments. Each assignment must be submitted *by the time specified on the assignment sheet (and/or in WebCT)* on the date the assignment is due. Assignments will only be accepted late if *prior arrangements* have been made with the instructor. If you do not know how to incorporate Excel tables, graphs, Equations, or GSP drawings into a document, please let us know. Reading assignments may require a brief written summary. Assignments from EMAT 5360/7360 contribute to your work in EMAT 4360/6360 and consequently may contribute to your grade in that course.

Expectations

You are expected to attend class each day. Should an emergency arise, please let the instructor know that you will be absent prior to class. Some absences may require the completion of an assignment to serve as a substitute for the discussions or activities completed in class.

You are expected to conduct yourselves in a professional, collegial manner. We will work towards fostering a collegial atmosphere in which all students feel comfortable contributing their thoughts, opinions, and critical analyses to the class discussions. However, we must be careful not to criticize, judge, or overpower the ideas and voices of others. Your notebooks are excellent canvases on which to formulate your ideas.

Writing

High quality written work will take advantage of the theoretical and practical ideas set forth in your reading assignments and discussed in class. In particular, you should draw on the *Principles and Standards for School Mathematics* whenever possible. Proper citation of all reference sources is required for every assignment. (See the Writing Resources handout for tips on quality writing.)

Professional Organizations

We suggest that you join the National Council of Teachers of Mathematics (NCTM) and subscribe to the *Mathematics Teacher*. Student membership is \$38, and you may join online at <http://www.nctm.org>. It is also a good idea to join the Georgia Council of Teachers of Mathematics (GCTM). See <http://www.gctm.org>. Student membership is free for juniors and seniors. We expect that you are already a member of University of Georgia's Mathematics Education Student Association (MESA). Membership dues are \$2 for undergraduates and \$5 for graduate students. MESA is an opportunity to interact with all members of the Department of Mathematics and Science Education on a more informal basis. See <http://www.coe.uga.edu/mesa>.

Certification Tests

Georgia certification requires the following Georgia Assessments for the Certification of Educators (GACE) tests: Mathematics I and Mathematics II. The tests will be given this year on Jan. 12, 2008, Mar. 29, 2008, June 14, 2008, and Aug. 23, 2008. More information is available on the GACE website: <http://www.gace.nesinc.com/> and the Georgia Professional Standards Commission website: <http://www.gapsc.com/TeacherTesting.asp>.

Other important information

- You must complete a criminal background check before your first field experience. See <http://www.coe.uga.edu/students/admission.html> for more information. The cost for a background check is \$48.50. This must be completed with enough time for the school district to review it before you go out into the schools. Since it takes three normal business days to complete the check, we recommend that you submit your online application no later than January 14, 2008.
- Deadline for application for Fall 2008 student teaching: January 22, 2008
- Deadline for College of Education student teaching scholarship: February 15, 2008
- Deadline for Sanders student teaching scholarship (departmental): February 1, 2008
- Since your field experience is in a public school, you are eligible for free professional liability insurance provided by the State of Georgia. You do not have to do anything to sign up for this coverage, but you should obtain a copy of the policy from the web site of the Department of Administrative Services at <http://www.doas.georgia.gov> and keep the copy of the policy for your files.

You will find forms and additional information in the hallway displays outside of Aderhold 122.

All academic work must meet the standards contained in “A Culture of Honesty.” All students are responsible for informing themselves about those standards before performing any academic work. All course products must be original contribution by the student or students in the case of collaborative work.

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