

**EMAT 4360/6360**  
**Teaching and Learning in Secondary School Mathematics**  
**EMAT 5360/7360**  
**Secondary School Mathematics Field Experience**  
**Spring, 2009**

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**Instructors**

**105 Aderhold Hall**

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**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 and middle school curriculum.

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, text books, 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, Wednesdays, and occasional Fridays, 12:30-1:45, 116 Aderhold  
Tuesdays and Thursdays 1:00-3:00, 111 Aderhold (occasionally will be scheduled 12:30-2:30)  
*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 12:30–3:30 daily. School visits will most likely occur on these dates, but may change in response to school needs.

January 26

February 2, 3, 4, 18, 19, 20

March 2, 3, 4, 30, 31

April 1-10

**Office hours**

By appointment; please email or call.

If you have a question or concern about the course or an assignment, please do not hesitate to contact us. You are welcome to stop by 105 Aderhold to see if we are available; however, if you call or email ahead of time we can work to coordinate our schedules with yours.

## Course topics (subject to change)

Implementing tasks and cognitive demand  
Discourse and questioning  
Assessment  
Student thinking  
Classroom norms  
Planning for instruction  
Diversity  
Appropriate use of instructional technology  
Classroom organization and management

## Required texts

Artzt, A. F., Armour-Thomas, E., & Curcio, F. R. (2008). *Becoming a reflective mathematics teacher: A guide for observations and self-assessment*. New York: Lawrence Erlbaum Associates.

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

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

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

National Council of Teachers of Mathematics. (1991). *Professional standards for teaching mathematics*. Reston, VA: Author.

National Council of Teachers of Mathematics. (1995). *Assessment standards*. Reston, VA: Author.

We suggest that you join the National Council of Teachers of Mathematics (NCTM) and subscribe to the *Mathematics Teacher*. Student membership is \$39, 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 as well as graduate students who are members of MESA. We expect that you are already a member of University of Georgia's Mathematics Education Student Association (MESA). Membership dues are \$5 for undergraduates and \$10 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>.

## Products that contribute to your course grade

### EMAT 4360/6360 (A–F)

Daily work and class participation	25%
Midterm	25%
Project	25%
Final/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	30%
Field reports	30%
School visits	20%
Student case study	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 week of the semester to discuss graduate-level assignments. 10% of your grade will be based on these graduate-level assignments.

### **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.

All written assignments must be typed and submitted through WebCT at [webct.uga.edu](http://webct.uga.edu). Please see your instructor if you have difficulty submitting assignments. Each assignment must be submitted *before class begins* on the date the assignment is due. That is, do not attempt to use the computers in 111 to submit your assignment after class has started. 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. Assignments will be posted on the EMAT4360/5360 class WebCT page and are due on the date stated on the assignment. 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.

### **Notebooks**

Each student should keep a notebook for the purpose of documenting class work and reflections. Maintaining a complete record of your work will greatly facilitate completion of the reflective portfolio.

### **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. For every unexcused absence in EMAT 4360, your course grade will be docked two percentage points. Excessive (more than two) unexcused absences from EMAT 5360/7360 will stand as grounds for an unsatisfactory grade.

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 judge or overpower the ideas and voices of others. Your notebooks are excellent canvases on which to formulate your ideas.

## **Tentative Due Dates**

January 30 Field Report  
February 11 Field Report  
February 17 Task Plan  
February 26 Midterm Exam  
March 1 Field Report  
March 18 Field Report  
March 25 Poster Session/Project Report  
April 3 Lesson Plan  
April 20 Case Study  
April 28 Unit Plan  
April 30 Portfolio

## **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 March 28, June 13, and August 22, 2009. 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 the first field experience date (January 26). Since it takes three normal business days to complete the check, we recommend that you submit your online application no later than January 16.
- Deadline for application for Spring 2008 student teaching: TBA
- Deadline for scholarship during student teaching: February 13, 5:00 p.m.
- 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.***