

EMAT 4360/6360
Teaching and Learning in Secondary School Mathematics
EMAT 5360/7360
Secondary School Mathematics Field Experience
Fall, 2007

Instructors
105 Aderhold Hall

Dr. AnnaMarie Conner aconner@uga.edu 583-8155 (office)
Dr. Ginger Rhodes gar0209@uga.edu 542-4534 (office)

Teaching Assistants: Bob Allen, Sarah Donaldson, Kelly Edenfield, Brian Gleason, and Sharon O'Kelley

Also, several doctoral students will regularly 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 HS 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, 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, 1:30 – 3:20, 112 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. School visits will most likely occur on these dates, but may change in response to school needs.

August 28

September 7, 19, 20

October 4, 5, 10, 11, 12

November 1 – 14, 16

Required texts

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

National Council of Teachers of Mathematics. (2004). *Empowering the beginning teacher of mathematics: High school*. 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 \$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. Unless you object, the entire class list will be submitted to GCTM for student membership. 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>.

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%
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.

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. Please see Bob Allen (boballen@uga.edu) or 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 Web 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. These notebooks are mainly for your record, but occasionally will be collected by the instructors for assessment. Maintaining a complete record of your work will greatly facilitate completion of the reflective portfolio.

Georgia Math Conference

The Georgia Council of Teachers of Mathematics will host their annual conference at Rock Eagle this fall from Wednesday October 17 – Friday October 19. You will be expected to attend either Thursday or Friday during the conference and to write about some of the sessions you attend. More information is forthcoming.

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 Oct. 27, 2007, 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 the first field experience date (August 28). Since it takes three normal business days to complete the check, we recommend that you submit your online application no later than August 20.
- Deadline for application for Spring 2008 student teaching: August 21, 2007

- Deadline for scholarship during student teaching: September 21, 2007
- Deadline to register for GCTM Conference: October 1, 2007
- 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.

Topics for discussion (tentative)

Dates Class Meeting Days (CM) or Field Experience Days (FE)	Topics	Assignments Due/Notes
August 16	Introduction	
August 20-23 CM – MTWR	Cognitive demand Noticing	Aug. 20 Mathography Aug. 20 Background check
August 27-30 CM – MWR FE – T	Cognitive demand	
September 4-7 CM – TWR FE – F	Argumentation Diversity in student thinking	
September 10-13 CM – MTWR	Questioning Diversity	
Sept 17-21 CM – MTF FE – WR	Lesson planning Facilitating discussions	
September 24-27 CM – MTWR	Planning and implementing tasks Assessment	Sept. 24 Task plan
October 1-5 CM – MTW FE – RF	Classroom organization and management Diversity/equity	Oct. 1 Midterm exam
October 8-12 CM – MT FE – WRF	Classroom organization Classroom norms Facilitating mathematics tasks	
October 15-17 CM – MTW	Lesson and unit planning Assessment	GCTM is this week
October 22-24 CM – MTW	Lesson and unit planning Assessment	Oct. 24 Project reports, poster session, class meets 12:20-3:20
October 29 - November 2 CM – MTW FE – RF	Project reports Standards and curriculum Prepare for extended FE	Oct. 31 Lesson plan
November 5-9 FE – MTWRF	Field Experience – in schools	
November 12-16 CM – R FE – MTWF	Field Experience – in schools Debrief	
November 19-20 CM – MT	Assessment	
November 26-29 CM – MTWR	Assessment Diversity	Nov. 29 Mini-project presentations
December 3-5 CM – MW	Looking back and forward	Dec. 5 Unit plan
December 10-14		Final/Reflective Portfolio