

**MA 241-001: Geometry for Middle School Educators  
Fall 2011**

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**Office Hours:** Tuesdays 1:00-2:30; Thursdays 2:30-4:00; By appointment  
**Class meets:** TR in POT 07 from 4:00-5:15  
**Course webpage:** <http://www.ms.uky.edu/~cmonday/>

**Textbook:** Beem, J. (2006) *Geometry Connections: Mathematics for Middle School Teachers*. Pearson Education, Inc. ISBN: 0-13-144926-5

**Introduction:** This is a course in plane geometry and solid geometry designed to give middle school mathematics educators the knowledge needed to teach a beginning geometry course. This is not a pedagogy course! This is an upper level college mathematics course in which you will acquire mathematical skills to use in your future courses and career. This course cannot be counted toward a mathematics major or minor.

**Prerequisites:** One semester of calculus or MA 201 with a grade of C or better.

**Motivation:** You graduated from middle school, so why do you need to take this course? This course is not a repeat of middle school geometry. You will learn the same concepts, but on a much deeper level; and this will help you effectively explain mathematics to your future students. For example, rather than being able to correctly find the area of a trapezoid, you will be able to generate a general formula for doing so and understand why it works.

In order to effectively teach mathematics at any level:

- Your mathematical understanding of the concepts you teach must be much deeper than the procedural level. You must be able to explain why and how mathematics works.
- You need to be familiar with many ways of describing and modeling mathematical concepts.
- You must have the ability to understand students' difficulties and have the flexibility to accommodate individual student learning styles.

**Attendance:** Attendance for this course will contribute to your grade in that you are responsible for in-class discussions which will take place regularly. Part of your homework grade comes from this discussion component.

It is impossible to do well in this course without regular attendance.

Students are expected to attend class, and are fully responsible for anything said or done in class. Thus, attendance is defined as more than just being in the room. (See Expectations.)

**Classroom Policies:** Cellphones and other electronic devices should be set to silent (not vibrate) and should not disrupt class in any fashion. If you expect an urgent phone call, please inform me before class. I do not allow texting inside of the classroom. Please also familiarize yourself with the rules in the University of Kentucky Student Rights and Responsibilities handbook, as they will be upheld. (<http://www.uky.edu/StudentAffairs/Code/>)

**Expectations:** Students should come to class on time and participate fully. This includes bringing your textbook if you need it, something to write with and on, and anything else you might need (including your notes on the discussion topic). Students are expected to participate in all activities presented and treat everyone in the classroom with respect. Students are expected to ask questions when they don't understand something. Students are expected not to cheat in any way. (See the above link for more information on cheating and plagiarism.) The instructor reserves the right to ask inattentive and disruptive students to leave. In return, the instructor will answer your questions to the best of her ability, will attempt to make the best use of class time, will respond to email questions in a timely manner, and will be available for questions outside of class.

**Homework:** There will be regularly assigned homework which will make up 15% of your final grade. Homework will be due at the beginning of class and no exceptions will be made. Homework will be graded based on completeness and correctness. You are allowed to work with others on your homework, but should write up your solutions on your own. Even though this is not an English course, I do expect good grammar. No "text-speak" please.

The written component of your homework will account for 10% of your final grade, and the discussion component will account for 5%.

**Presentation:** You will give two in-class presentations this semester to practice effectively communicating mathematics. You will work and present in groups. Except in extraordinary situations, one grade will be assigned for every member

of your group. You will be notified at least three weeks before presentations begin. I will be taking attendance during all presentations.

**Exams:** You will complete two in-class exams this semester, as well as one final exam. I will provide an exam guide before each exam. If you need a make-up or alternate exam, please follow university policy to obtain one.

**Grading:** The breakdown of your course grade is as follows:

Homework:	15%
Presentation:	20% (10% each)
2 Exams:	40% (20% each)
Final:	25%

**Academic Accommodations:** If you have a documented disability, I will be happy to provide you the reasonable accommodations. Please discuss this with me within the first two weeks of class.

**How to Succeed:** This course is challenging for some students. If you find you are struggling, try the following:

- Come to my office hours and email me if you have questions.
- Read the book and study your notes.
- Form a study group.
- Make a study plan.

**Tentative Schedule:**

8/25 - 9/8: Chapter 1	10/18 - 11/1: Chapter 3
9/8 - 9/29: Chapter 2	11/3 - 11/10: Chapter 4
10/4 - 10/6: Presentation 1	11/15 - 11/17: Review and Exam 2
10/11 - 10/13: Review and Exam 1	11/22 - 12/8: Presentation 2 & Ch. 5

**Important Dates:**

8/30 - Last day to add	11/4 - Last day to withdraw
9/14 - Last day to drop	11/17 - Exam 2
10/4 - Presentation 1 begins	11/24 - Thanksgiving holiday
10/13 - Exam 1	11/29 - Presentation 2 begins
10/17 - Midterms	12/13 - Final Exam

**Final Exam:** Your final exam is Tuesday, December 13 at 3:30am in POT 07.

I reserve the right to change the syllabus at any time and promise to give adequate notification of any changes.

If you are ever struggling with the material, please let me know as soon as possible. I am available and more than willing to help. The best way to reach me is via email.

Casey Monday

Wednesday, August 24, 2011