MATH 3703: Geometry for P-8 Teachers
Summer 2015 Semester

Instructor: Brian Brodsky  
Office: Boyd 106 C
Phone Number: 678-839-5313  
Email: bbrodsky@westga.edu
Class Meetings: Tuesday and Thursday 11:00 am to 1:30 pm
Office Hours: Thirty minutes before and after class period.

University Policy:
Students, please carefully review the following information at this link
http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf It
contains important material pertaining to your rights and responsibilities in this class. Because
these statements are updated as federal, state, university, and accreditation standards change, you
should review the information each semester.

Catalog Description:
This course has a special emphasis for teachers of grades P-8. It broadens understanding of logic,
real numbers, basic and transformational geometry, measurement, including the metric system,
problem solving, methods and materials for teaching at the P-8 level.

Required Textbook:
elementary school teachers*, (11th ed.) Boston, MA: Pearson Addison-Wesley

Required Supplies: Graphing Calculator, compass, straight edge/ruler, and protractor.

Student Learning Outcomes: P-8 teacher candidates should be able to do the following:

- Deepen their understanding of geometric vocabulary, notation, and symbols.
- Expand their understanding of fundamental geometric concepts including geometric
  shapes & figures, measurement, similarity & symmetry, non-Euclidean geometries, and
  fractals.
- Use geometry to problem solve in multiple contexts.
- Communicate geometric ideas and concepts effectively and successfully.
- Infuse children’s literature to promote geometric reasoning.
- Become familiar with mathematics education journals and other resources.
- Establish personalized reform-based visions for promoting geometric reasoning aligned
  with the Common Core State Standards for Mathematics.

Disabilities: Students with documented disabilities (through West Georgia’s Accessibility
Services) will be given all reasonable accommodations. Students must take the responsibility to
make their disability known and request academic adjustments or auxiliary aids. Adjustments
needed in relation to test-taking must be brought to the instructor’s attention well in advance of
the test (at least one week prior).
CourseDen: Course materials will be posted on CourseDen. Please check CourseDen often for updates. You may log in to CourseDen at www.westga.edu or http://webct.westga.edu. If you are having problems logging into CourseDen, please go to http://uwgonline.westga.edu/students.php or call 678-839-6248

Academic Honesty: You are expected to achieve and maintain the highest standards of academic honesty and excellence as described in the Undergraduate Catalog. In short, be responsible and do your own work.

Classroom Conduct: Students are expected to be respectful and mindf ul of each other. Students disturbing or interfering with instruction will be asked to leave.

Grade Composition:

- 45% from participation/presentations.
- 30% from exams 1 and 2.
- 25% from final exam.
- Final Grade: A ≥ 90 > B ≥ 80 > C ≥ 70 > D ≥ 60 > F

Information about Course Assignments:

Participation/Presentations:
Each student will be tasked with giving three presentations throughout the semester: Geometric Reasoning: Microteaching, Geometric Inquiry, and an Article Brochure. Each presentation will count for 15 percent of your final grade. In the event that a student does not show up for their scheduled presentation, a grade of zero will be given for the assignment.

Geometric Reasoning: Microteaching: Pre-service teachers will present a geometric activity to the class via a lesson. Please note that this microteaching presentation must be done in conjunction with a children’s literature text. You will present the activity to the class community as if you were implementing the activity in a classroom setting with elementary mathematics learners. As such, you are responsible for making any copies of any handouts for your microteaching presentation. A lesson plan must be constructed in preparation for this demonstration and posted to CourseDen on the day of the presentation. You may see an example of one of these lesson plans on CourseDen.

Geometric Inquiry: Pre-service teachers will present a geometric activity, inquiry, and/or construction to the class via a lesson. This presentation must contain, but not be limited to, geometric concepts seen in chapters 11-14 of our text. You will present this activity with your fellow pre-service teachers as the intended audience. As such, you are responsible for making any copies of any handouts needed for your presentation. A lesson plan must be constructed in preparation for this demonstration and posted to CourseDen on the day of the presentation. You may see an example of one of these lesson plans on CourseDen.
Article Brochure: There are many journals dedicated to improving the mathematics education of school-aged children. As professionals, you are expected to become familiar with and capitalize off of these scholarly sources to further meet the needs of your students. For this presentation, please select a journal article about exploring geometric concepts with elementary students and create a brochure based off your article. Please post your brochure on CourseDen on the day of the presentation. You may see an example of one of these brochures on CourseDen.

Exam 1, Exam 2, and the Final Exam: Please see the important dates section for the scheduled dates of the exams. Students must notify the instructor at least one class meeting prior to the scheduled exam date in order to request a rescheduling of an exam. There will be no make-up exams, thus all missed exams will result with an exam grade of zero.

Important Dates:

- June 2: First day of class.
- June 18: Exam 1
- June 23: Last day to withdraw to receive a grade of W.
- July 9: Exam 2
- July 21: Last day of class
- July 23: Final Exam: 12:30 pm – 2:30 pm

Suggested Children’s Books that Promote Geometric Reasoning