

Mathematics 205B

Spring 2006

Course Information

Instructor: Jeff Tecosky-Feldman, Office: Hilles 207e (896-1199), email:jtecosky

Office Hours: Mondays, Wednesdays and Fridays 4-5, Tuesdays and Thursdays 1-2 and by appointment.

Text: *Roads to Geometry, 3rd ed* by Edward C. Wallace et al (Prentice Hall). Be sure to get the Third Edition!

Description: This course will survey several different approaches to geometry. First, the synthetic, or axiomatic geometry based on Euclid. Then the more modern, transformational approach, pioneered by Klein will be developed, with an introduction to symmetry groups. Finally, we shall consider non-Euclidean geometries. Emphasis will be on developing strategies for writing proofs and strengthening precision in mathematical expression of ideas.

Prerequisite: Multivariable Calculus or instructor consent.

Lectures: TTh 10-11:30 in KINSC E309.

Weekly assignments and Labs: Assignments will be sent to you by email each Thursday, and are due at 5pm the following Thursday; they can be turned in to a tray outside Hilles 207e. No late homework will be accepted without prior permission from the instructor; late submissions may have 20% deducted.

Honor Code: For homework problems, discussion with other students in the class or with me is highly encouraged, e.g., in Math Question Center, my office, or elsewhere. Please indicate on your homework who your collaborators were. *Please see <http://www.haverford.edu/math/collaboration.html> for discussion of appropriate modes of collaboration on homework.* The short version is that the actual writing of the assignment should be done individually, without using detailed notes from your collaborative discussions, so that it represents your personal understanding of the problems. For the midterms and final, no collaboration is allowed. You may ask me for clarification of the questions on tests, but I will not give suggestions about the actual solutions.

Math Question Center: Hilles 011 will be open Sundays through Thursdays, 7-9 PM, to provide a gathering place conducive to working on math assignments. Math department faculty and student assistants will be on hand for answering math questions, dispensing hints, and coaxing output from recalcitrant computers.

Exams and Grading: There will be two takehome midterm exams and a cumulative, self-scheduled final exam. The course grade will be computed out of a total of 300 points using approximately the following weighting system:

- 50 points each for midterm exams
- 100 points for the final exam
- 100 points for the written homeworks

Enjoyment: You are expected to enjoy the course!

Students who think they may need accommodations in this course because of the impact of a disability are encouraged to meet with me privately early in the semester. Students should also contact Rick Webb, Coordinator, Office of Disabilities Services (rwebb@haverford.edu, 610-896-1290) to verify their eligibility for reasonable accommodations as soon as possible. Early contact will help to avoid unnecessary inconvenience and delays.