

Mathematics 297R, Fall 2010
Geometry

Instructor: Michael Rogers (with Fang Chen)

Office: Pierce 122 (The Math Center)

Textbook:

H.S.M. Coxeter, *Introduction to Geometry*, second edition.

Course Credit and Content: This is a two semester-hour course in geometry developed after Euclid. We will cover chapters 1, 6, 13, 14, and sections 8.3–4 of Coxeter's book. This includes some developments in plane Euclidean geometry, properties of circles and spheres, conics, and some topics in projective geometry.

Course Goals: The goal is for the student to develop effective tactics for attacking geometrical problems through solving problems in the above and related topics.

Coursework: The class will have a seminar format. Problems will be assigned. Some will be due each meeting. Students will present the solutions to assigned problems in class. These will be discussed along with appropriate background material. Occasionally other problems will be assigned over a longer period. Students may be required to submit written solutions, too.

Grading: Grades will be based primarily on the students presentations and problems collected for credit (80%) as well as on class participation (20%). Each student's work will be judged in relation to the goals set for the course.

The Honor Code of Oxford College applies to all work submitted for credit in this course. By placing your name on such work, you pledge that the work has been done in accordance with the given instructions and that you have witnessed no Honor Code violations in the conduct of the assignment.