Math 445	Geometry for Teachers	Spring 2010
	SYLLABUS	

Professor: John M. (Jack) Lee
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Office hours: Monday 1:30–2:20, Friday 12:30–1:20.

TA: David Sprehn
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Discussion sessions: to be announced.

Classes: Monday/Wednesday/Friday 10:30-11:20, Denny 314.

Website: *www.math.washington.edu/˜lee/Courses/445-2010*
From the Math Dept. home page, **Class Web Pages → Math 445**

Textbook: The text for 445 will be the following course notes, which will be posted on the class website as each chapter becomes available.

John M. Lee, *Axiomatic Geometry*, course notes for Math 444/445.

Prerequisite: Grade of 2.0 or better in Math 444.

Exams: Midterm: *to be announced.*
Final: Monday, June 7, 8:30—10:20.

GENERAL DESCRIPTION

This course is a continuation of Math 444. Having laid the groundwork for axiomatic plane geometry in 444, we can now start proving some serious theorems about geometric relationships. For most of the quarter, we will focus on neutral geometry (plane geometry without a parallel postulate) and Euclidean geometry (neutral geometry plus the Euclidean parallel postulate). Near the end of the quarter, we will delve briefly into hyperbolic geometry (neutral geometry plus the hyperbolic parallel postulate).

REQUIREMENTS

Classes: Although I won't keep a formal attendance record, *class attendance is required.* Many things will be discussed in class in more depth than they are covered in the reading. If you will miss a class for a religious holiday, let me know in advance and I'll help you get the information you missed. If you must miss a class for some other unavoidable reason, it's your responsibility to find out what happened, and get your homework to me by class time (or, in case of emergency, as soon as possible thereafter).

Geometry Blog: I've set up a Math 445 Geometry Blog, accessible from the class website. I will try to post a blog entry as soon as possible after every class—usually, my entries will be ready by about 4:00PM, sometimes sooner. Each of my blog entries will include a brief summary of what happened that day (no substitute for attending class!), the latest reading and written assignments, and some questions for you to address in your own blog entries. This quarter, blog posts will not be required; but you are encouraged to use the blog as a place to post questions, answer questions, or discuss ideas related to the course. If you wish to write about specific homework problems, please confine your comments to general questions and suggestions about how to get started.

Reading: Some of my blog posts will include reading assignments. I expect you to read through each assignment quickly before the next class, and then to reread it carefully after it is covered in class. All reading assignments are required. You cannot possibly answer the homework and test questions satisfactorily without doing the reading carefully.

Written Homework Assignments: Some of my blog posts will also include written homework assignments. Assignments are due on Wednesdays *at the beginning of class.* Homework turned in after the first five minutes of class will get a 5% deduction, and homework turned in after class will not be accepted except in extraordinary circumstances and (except for emergencies) with advance permission. I strongly encourage you to work on the homework problems together with other students. However, when you write up your solutions to hand in, *you must write your own solutions in your own words.* More details about how to write up homework assignments can be found in the *Homework Expectations* handout.

Optional W-Course Credit: You may optionally sign up for W-course (writing-intensive) credit for Math 445. For those who choose to try for W-course credit, two written homework assignments will be designated as "Portfolio Assignments." You'll revise and rewrite your portfolio assignments after feedback from other members of the class, the TA, and/or me. After a couple of rounds of revision, you'll come up with a final version to keep in your portfolio. At the end of the quarter, you'll turn in a completed writing portfolio for a grade. If you pass Math 445, turn in all required portfolio drafts, and receive an overall score of 70% or better on the portfolio project, you'll receive "W-course" credit for Math 445.

GRADES: Your grade will be based on a weighted average of the following scores:

40%   Homework assignments
25%   Midterm exam
35%   Final exam

Individual homework scores will be recorded as percentages, and the lowest homework score will be dropped before averaging the rest.