Math 331 – Geometry – Course Policies

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TENTATIVE OFFICE HOURS:	Monday 8:30-9:30 Wednesday 3:30-4:30 Thursday 2:00-3:30 **And by appointment** (Really!)
TEXT:	*Experiencing Geometry in Euclidean, Spherical, and Hyperbolic Spaces, Second Edition* by David Henderson

Overview

The focus of this class is to help you build your geometric intuition and understanding by comparing the geometries of the Euclidean plane, the sphere, and the hyperbolic plane. The tentative plan is to discuss Chapters 1–8, 10, 17, 20, and 22 from the text. By the end of the semester, we will be able to explore some of the arguments that our universe is not, in fact, Euclidean. This is going to be a really fun semester.

The class will be structured with very few, if any, lectures. You will work on problems outside of class, and we will discuss your ideas during the class meetings. The questions tend to be open-ended, so you will develop your own definitions, and nothing will be taken for granted. I'm looking forward to learning alot from you this semester.

Evaluation

Your final grade will be determined by

Homework	60%
Class Participation	15%
Book Review	10%
Presentation	15%

Homework and Class Participation

You will have specific problems to complete for each class that will form the basis of the class discussions. You should have your responses written by the beginning of class so that you are prepared to contribute during class. In order to give you some time to respond to the class meetings, the problems we discuss in class on Mondays will be collected at the beginning of class on Wednesday, and the problems we discuss on Wednesday are due at my office no later than 3:30 pm on Thursday.

Each problem will be graded out of 20 points, and you will have one opportunity to rewrite any problem that you have made a serious effort to complete. You must turn in your rewrite, along with your original paper, at the beginning of the class meeting following the one when I return the homework to the class.

Please feel free to discuss these problems with other students in the class, but each person must turn in a separate paper that represents her own work.

Here are a few guidelines for the presentation of your written work. If you do not follow these, I reserve the right to return your homework ungraded

- Your writing must be clear and legible.

- Your solutions should be well-written, using complete sentences to justify your results where necessary.

- Here is a good rule of thumb to follow when writing up your work:

    Write your solutions so that you could hand them to another student in the class and she could understand your explanation.

- Do not turn in your first draft of the assignment. You should expect to *neatly* recopy and organize your work.

- If you write in pen, there should be no scratch-outs.

- Do not turn in paper torn from a spiral notebook with ragged edges.

> **I strongly recommend that you turn in all assignments on time. For each 24 hour period that an assignment is late, you will lose 25%.**

Book Review and Presentations

You will write a book review on a mathematical book written for a popular audience. There are many possibilities, *Fermat's Enigma*, *A Mathematician's Apology*, *Flatterland*, *The Code Book*, *The Man Who Knew Infinity* (a biography of Srinivasa Ramanujan), and *The Man Who Loved Only Numbers* (an account of Paul Erdos). I can help you find a book for this.

During the final week of the semester, you will each give a 30 minute presentation to the class on a topic from geometry that we have not discussed in the course. I will work with each of you on picking a topic and developing your presentation.

More information on both of these assignments will be forthcoming during the semester.

Getting Help

Please come see me during my office hours! If you have a conflict and cannot make my office hours, please call or email me and we can set up an appointment for another time.

Some Important Dates

September 18	Title of book for Book Review due
October 16	Progress report on Book Review due
November 4	Book Review due
November 11	Topic for Presentation due
November 25	Abstract for Presentation due
December 9 & 11	Presentations