

M330 – Fall 2008

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Office hours: Tuesdays 11am-12:15pm
Thursdays 1:45pm-3:30pm
or by appointment

Required Textbook:

Gay, D. (1998). *Geometry by Discovery*. New York: John Wiley & Sons.
[I intend to cover chapters 1-4, and parts of chapters 5, 6, and 7, in your textbook.]

Course Overview:

In this course, you will investigate and deepen your understanding of selected topics in geometry. Topics are taken from 2- and 3-dimensional combinatorial geometry, Euclidean transformational geometry, symmetry, geometric optimization (shortest path problems), theorem of the arithmetic and geometric means, isoperimetric problem, polyhedra, and 2- and 3-dimensional crystallography. This course is problem-centered. This means that we will spend a significant portion of our time together doing mathematics – that is, investigating non-routine problems, making and testing conjectures, sharing insights and methods, and developing proofs that further our understanding of mathematical relationships.

Course Requirements/Administrative Drop Policy

ATTENDANCE IS CRUCIAL. Let me repeat, ATTENDANCE IS CRUCIAL. Because we “do math” during class, it is not possible to duplicate the “in-class” experience at home. Occasionally, I collect work produced during class at the end of class. Excessive absences (defined as more than two unexcused absences) will result in an administrative drop from the course. Missed assignments/exams will result in a grade of zero unless I agree to other arrangements IN ADVANCE. There will be two exams in addition to the final exam (which is scheduled for Thursday, December 18th from 11:00am to 1:00pm). I will announce the dates for the two exams during class and a minimum of one week prior to the exam. In addition to homework and exams, you will be required to complete two projects during the course of the semester. Information about the first project will be distributed before the end of the second week of class; information about the second project (which will not be due until the second to last week of class) will be distributed by mid October.

Withdrawals

The last day to withdraw without a grade is Friday, September 19th. The last day to withdraw with a grade of “W” (if passing) is Friday, October 17th. Before and after the 8th week, “passing work” and “failing work” are determined by the work completed to date and distributed percentage-wise as described under “Grading Policies.” Passing is a grade of D or better.

Homework Policies

Homework will be graded using the same scale as is listed under “grading policies.” Although discussion of homework problems with other students and with the instructor is encouraged, students should write up their own answers. Homework should be written in legible, complete sentences, showing calculations and reasoning in a clear, logical order. Homework is due at the beginning of class. I will accept late homework for partial credit (50%) up to 24 hours after the due date/time.

Grading Policies

Homework Assignments = 25%	A = 90-100%
Projects/Classwork = 20%	B = 80-89%
Two Hour Exams = 30%	C = 70-79%
Final Exam = 25%	D = 60-69%
	F = 50-59%