POLICIES/SYLLABUS

Instructor: Eric Moorhouse
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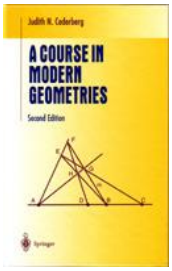
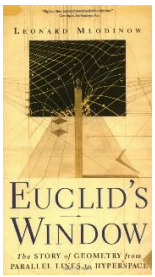
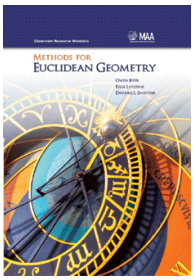
http://ericmoorhouse.org/
Ross Hall $6^3=216$, phone 766-4394

Class Meets: TR 1:20–2:35pm, BU 208

Prerequisite: Grade of C or better in Math 3205 (Analysis I) or Math 3500 (Algebra I).

Office Hours: My current schedule is posted at http://ericmoorhouse.org/schedule.html Office hours may fluctuate and exceptions will arise; these I will try to note on my online schedule. As of this week, however, my office hours (in RH216) are set for MW 10–11:30am and F8–8:50am. I will also try to be available in the BU lobby TR 10–10:50am. In addition to my regularly scheduled office hours, please feel free to see me at other times, either by appointment or when my door is open and I am not busy.

Sources:

	Suggested (*not* required): Cederberg, *A Course in Modern Geometries*, 2nd edition, Springer, 2001.		Highly recommended: Mlodinow, *Euclid's Window: The Story of Geometry from Parallel Lines to Hyperspace*, 2002.		Suggested: Byer, Lazebnik & Smeltzer, *Methods for Euclidean Geometry*, MAA, 2010.

Although there is no required textbook, handouts will be provided during the semester. You are expected to read them.

Grading Scheme:

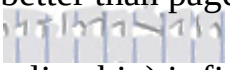
I will assign grades (A, A^-, B^+, B, B^-, C^+, C, D, F, W) *at the end of the semester* according to the scale: A=exceptional, B=very good, C=adequate, D=poor, F=fail, W=withdrawal. I always encourage students to consult me at any time

10%	**Participation**
25%	**Homework**
20%	**Midterm Test 1**
20%	**Midterm Test 2**
25%	**Final Exam**

during the semester with questions, including (but not restricted to) questions about your progress in the course. You may ask questions by email, at your own risk (remember that email is not secure); but questions asked in person typically receive more prompt and complete answers.

Homework:

Homework is the most vital part of this course. Mathematics, more than most subjects, is one which you learn not by listening and absorbing, but by trying out yourself. The learning of mathematics is also more sequential than that of other subjects … so all the more need to be regular in doing problems yourself! Homework assignments will be assigned approximately once per week, and will be submitted to me on the specified due date (usually after 2–3 classes), at the end of class. The following expectations apply to submitted homework:

- Multiple pages should be *stapled* together.
- Write clearly. Part of the grade reflects organization and clarity of presentation. Tablet paper is better than pages ripped from spiral-bound notebooks (I will trim off the  if I see it). The back side of printed paper (e.g. from a recycling bin) is fine.
- Many solutions require sentence answers, e.g. in answer to 'Explain' or 'Why…' questions. In such cases, correct use of vocabulary, spelling, grammar, and punctuation is expected for full credit.
- If you must submit homework outside of class time, either slide it under my office door, or ask the Math Department secretary to put it in my mailbox. Never leave ungraded homework outside my door, as this is insecure.
- Always remember to put your name, the class (Math 4600), and the assignment number (e.g. HW1, HW2, etc.). There is no need to re-write questions.

It is fine for you to discuss the homework with other students. However, please do not copy anyone else's work directly. Copying may adversely affect your grade; but more importantly, of course, you won't be adequately preparing yourself for the tests in this way.

Tests:

There will be two 50-minute tests during class time, and one final exam, all of which are 'closed book'; however, you will be permitted to use a handheld calculator and one 'cheat sheet' (one 8½×11 inch sheet with information written on one side in your own handwriting). Sharing of calculators or other aids during tests and the exam, is not permitted. The tests will each cover a specified unit of material only, but the final exam will be comprehensive. The final exam is scheduled for 1:15–3:15 pm on Thursday, December 13, in our usual lecture room (BU 208). *Tentative* dates for the tests are October 16 and November 13.

Make-up tests for those who miss tests, will only be granted in cases of verifiable illness or the most extreme circumstances (at my discretion). Please contact me in advance of such a situation if possible, or leave a message with the Math Department (766-4221). Even in legitimate cases, the make-up test will be harder than the original test.

Participation:

The participation component of the grade will be based on your regular attendance timely arrival for class sessions, in addition to participation during class, including asking and answering questions and evident engagement in class activity.

MATH 4600 Course Website:

Course-related announcements, links, homework assignments and solutions, and handouts will be posted at http://ericmoorhouse.org/courses/4600/
The electronic copies offer several advantages over hardcopies distributed in class: full color format, electronic search capability, and updated versions in which any reported errors have been corrected. Grades for semester work (homework and tests) will be reported not on the official course website, but rather on the WyoCourses site.

Frequently Asked Questions:

For more detail on policies of course administration, learning progress, etc. please refer to http://ericmoorhouse.org/courses/FAQ.html. Most questions students ask me are already answered in this document.

Students with Disabilities:

If you have a physical, learning or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability, to the University Disability Support Services (UDSS) in SEO, Knight Hall 330, phone 766-6189.

Appropriate Conduct:

For issues of academic honesty/dishonesty, classroom deportment, etc., we refer to

- UW Student Code of Conduct (UW Dean of Students)
- Students & Teachers Working Together (UW College of Arts & Sciences)

Links to both documents appear on our course website.

Course Content:

As indicated in the UW course catalog, Math 4600 "*broadens the student's understanding of the many faces of geometry and provides a context for the specific case of Euclidean geometry. Various approaches will be presented, including axiomatic, synthetic, coordinate, and transformational methods.*"

In the spirit of the catalog course description, students are expected to approach the subject matter with an open mind, expecting to learn something. A tentative list of topics to be covered includes:

- Overview of modern geometries
- Axiomatic foundations of geometry
- Euclidean geometry
- Finite geometries
- Projective geometry
- Inversive geometry
- Hyperbolic geometry
- A few key ideas from algebraic geometry
- Dimension
- Geometric transformations in Euclidean Geometry
- Fractal geometry
- A few applications of geometry