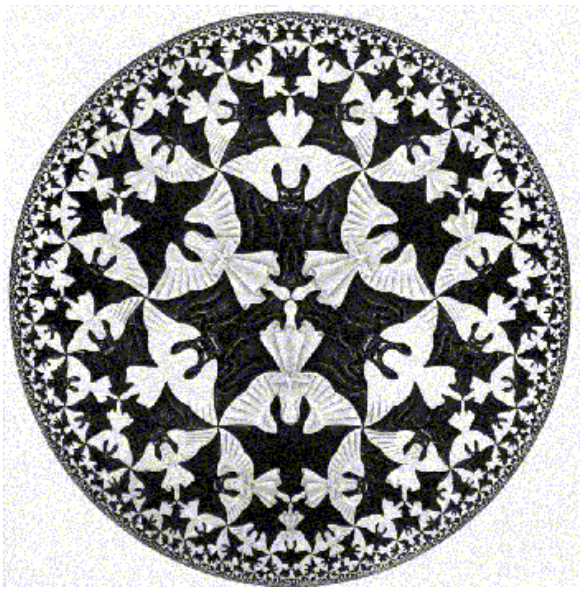

scott m. lewis
hertz 225
phone: 963-1803
fax: 963-3226
hours:
m,t,th - 11:00am
else, by appointment, gleeflully accepted

topics:

axiomatics

axiom sets for euclidean geometry:

euclid's axioms
hilbert's axioms
birkhoff's axioms
smsg axioms

links:

euclid's elements online (start here)
general history of mathematics (from trinity college, dublin)
t. l. heath's translation of euclid's elements
historical timeline

of course, there are many other resources out there. find some of them and report back to me.

college geometry II
math 455
3 credits
lind 204
mwf - 8:00am

prerequisites: Permission, MATH 355 and MATH260, Tier II Secondary Mathematics Education.

text:
(1991). sved, marta. *journey into geometries*. washington, d.c. the mathematical association of america. cwu coursepack (reprint. courtesy of mathematical association of america).

description:
in the history of humankind there have been a handful of achievements that have been important; capturing something special either of the spirit, the aesthetic, or the intellect of us all. the development of modern geometry is one of those achievements. it is for that reason that everyone with a college degree should have, along with a little shakespeare and a few other things, a couple quarters of geometry.

historically speaking, the roots of the subject go back to the origins of human thought and tell a fascinating story. one of the most fundamental questions of the field can be stated in this way: 'given a line, l, and a point, p, not on l, how many lines exist through p, parallel to l?' it's amazing how such a simple question can have such an interesting set of solutions with such far-reaching consequences.

there are some links in the left sidebar of this page. take the time to explore what some people in other universities are interested in. there are other possibly useful links back at my home page.

check out the class calendar.

this quarter we will study the following:

- an introduction to axiomatics,
- the use of models and finite geometries to probe the properties of axiomatic systems,
- simnple models for non-euclidean geometries.
- elliptic and hyperbolic families of circles,
- inversion in a circle, and
- properties of the poincare' disk model for hyperbolic geometry.

evaluation:
the bulk of your grade (95%) will be determined by two midterms (30% ea.) and a final examination (35%). the first midterm will take place (and be graded) before the deadline for dropping the class.

the remaining 5% of your grade will be based on the homework assignments i collect, the several, unannounced but straight-forward quizzes we have, and things like class participation.

if you have any questions or comments, feel free to come by my office or e-mail me at the address below.

student learner outcomes

the most important things you learn in school are not going to be measurable, sorry. in fact, the absolute best service a list of 'student learner outcomes' could possibly provide is as a random sample of behavioral objectives. that said, at the end of this course, you will have a reasonable facility (as measured by the evaluation procedures described above) in constructing sound mathematical proofs with a variety of techniques in the development of some of the basic concepts underlying non-euclidean geometry.

fun with influenza

if you have a severe respiratory or influenza-like illness (ILI) (high fever, aches, chills, cough) **you should not come to class until you are without fever for 24 hours without the aid of fever-reducing medication**. if your absences are related to a severe respiratory or flu-like illness, you will be given the opportunity to make up your assignments and class content without penalty. it is your responsibility to notify your instructor *in advance* when absent due to the flu. faculty is under no obligation to excuse class absences related to sickness. If you are pregnant, work with your instructor to prevent exposure to influenza. you should utilize the following precautions to prevent exposure:

1) frequent hand washing and carry a bottle of alcohol-based hand sanitizer with you at all times.

2) cough etiquette (grab your shoulder and cough into your elbow).

3) place used tissues immediately in the trash, followed by washing your hands.

4) use CDC-approved disinfectants on shared surfaces such as doorknobs, desks, etc. 5) Stay home if you have a severe respiratory or flu-like illness.

If you are concerned you may have seasonal influenza, notify student health. plan for potential absences and assure you have access to the internet and blackboard for assignments. regardless of your flu status, you must complete the requirements of the course to receive a passing grade.

note

students with disabilities who wish to set up academic adjustments in this class should give me a copy of their *confirmation of eligibility for academic adjustments* from the disability support services office so that we can meet in order to discuss how the approved adjustments will be implemented in this class. students with disabilities without this form should contact the disability support services office, bouillon 205 or dssrecept@cwu.edu or 963-2171 as soon as possible.

no, no, no!

no late assignments, no early tests, no late tests, no make-up tests (including finals ... be there).

| post no bills |

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spring 2015.

there's no place like home.