MATH 317H   Advanced Linear Algebra – Spring 2016
Meeting Times and Locations:
Lectures: MWF, 12:40-1:30, A118 Wells Hall
Recitation Sessions:
MTH 317H, Section 1, 12:40-2:00 on Thursdays, A334 Wells Hall

Instructor: J. Hall
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Office Hours: MWF 10:20-11:10

Teaching Assistant: Garrett Siles
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Office Hours: 2:00-4:00pm F (also MLC 1:40-2:50 T)

Textbook and Course:
Linear Algebra Done Wrong by Sergei Treil, Brown University. Available at
https://www.math.brown.edu/~treil/papers/LADW/book.pdf
Supplementary material can be found on the course web page
http://users.math.msu.edu/users/jhall/classes/mth317h-s16/mth317h-s16.html

We hope to cover the first five chapters as well as topics from the other chapters and topics not in the notes at all. You will be expected to read the sections covering the lecture topics and be responsible for any material covered by the lectures or supplemental handouts. You should read the textbook material *before attending* the class that covers it. The course has two goals:
  (i) to familiarize you with the basics of linear algebra;
  (ii) to acquaint you with how mathematics is practiced, particularly by learning how to prove things correctly and coherently.

Grading:
As this is a writing course, you will be expected regularly to write and discuss proofs. Final grades will be no worse (and possibly better) than straight scale:
90% or more: 4.0;
80% or more: at least 3.0;
70% or more: at least 2.0.
No one with less than 50% should expect to pass the course.
Grades will be determined by your performance on homework(~50%), classroom contribution (~5%), two midterm exams (~25%), and a final exam (~25%). The astute student will notice that this adds to 105%. This means that a small amount of homework can be missed without penalty and also allows for the fact that classroom participation is important but hard to gauge.

Homework: Assignments will be announced in class and posted on the course web page
http://users.math.msu.edu/users/jhall/classes/mth317h-s16/mth317h-s16.html
Late work will not be accepted except in extreme situations. You are encouraged to talk with your classmates about the homework, but each student must submit his or her own solutions. (If you work in groups, please indicate the members of your group on your paper.) Homework may be turned in early. Assignments will be due most weeks, usually on Monday at the beginning of class.

Classroom contributions: Positive contributions come from, for instance, taking an active part in any discussions of lectures and homework. Negative contributions come from chronic tardiness or absence, class disruption including checking cellphones, Facebook, etc. Everyone begins with the assumption of average contribution.

Exams: The two midterm exams will be administered during class time. The tentative dates are **Fridays, February 26** and **April 15.** The final exam is scheduled for **Thursday, May 5, from 12:45pm-2:45pm** (assume our regular room unless told otherwise). No calculators, computers, etc., are allowed in exams. (*Make-up Policy*: If you are unable to take a scheduled exam due to serious illness or other emergency you must contact the instructor within 24 hours of the scheduled exam. Arrangements for known events such as university-sanctioned travel or religious holidays must be made in the first two weeks of classes.)

Important dates in the semester
Monday – 01/11/2016 – Classes Begin.
Monday – 01/18/2016 – Martin Luther King Day - University open, classes cancelled.
Monday 01/18/2016 to Friday 01/22/2016 – Students go to Undergraduate office, C212 Wells Hall for Mathematics enrollment changes. (Late adds, section changes) (**Note: different rules apply for MTH317H; consult instructor.**)
Friday – 02/05/2016 – End of 100% Tuition Refund
Wednesday – 03/02/2016 – Middle of Semester. Last day to drop a course without a grade being reported.
Monday 03/07/2016 to Friday 03/11/2016 – Spring Break
Friday – 04/29/2016 – Last day of classes

Some Advice: This is an advanced linear algebra class with emphasis on theory, that is, understanding of mathematical concepts and writing mathematical proofs. It also covers more material than MTH309, the regular linear algebra class. This class will likely be quite different from what you are used to. There are many resources available (office hours, problem sessions, help room), and we want you to succeed.
Do not hesitate to ask questions whenever something is unclear. If you come to the realization that the class is not for you, please talk to me or to Prof. Bruce Sagan within the first month of the semester so that you can be placed into a more suitable class.

Academic Honesty: Academic dishonesty is considered a serious offense at MSU, and cheating in any form will not be tolerated. Offending students may receive a 0.0 on the assignment or exam in question or fail the course. This includes plagiarism, failure to give proper citations, and copying another's work. For more information see
https://www.msu.edu/unit/ombud RegsOrdsPolicies.html