Math 8530: Linear Algebra

Fall 2016

Martin M-203, MWF 9:05-9:55

Instructor Dr. Matt Macauley (macaule@clemson.edu)

Office: Martin Hall O-325

PHONE: (864) 656–1838 (no voicemail!)

Office Hours: After class.

WEBSITE: http://www.math.clemson.edu/~macaule/classes/f16_math8530/

Textbook Linear Algebra and its Applications, by Peter Lax.

Prerequisites Math 3110 (Linear Algebra) or 4530 (Real Analysis).

Policies

- Homework assignments will accumulate from lecture to lecture and will be due roughly once a week. I will post the problems on my website. Late homework will *not* be accepted.
- Attendance on test days is mandatory. Class attendance at other times is not mandatory, but is strongly recommended.
- If you get an A on the final exam, then you get an A in the course.
- All drop/add procedures are your responsibility.
- Absent Professor Policy: If the instructor has not arrived within 10 minutes of the scheduled class time, you may assume that class has been canceled.
- All use of cell phones, laptops, and PDAs is prohibited during lecture. Calculators, cell phones, laptops, and PDAs will not allowed during exams.
- Cell phone policy: http://www.youtube.com/watch?v=FYwpxU_G4Z0
- I will NOT post homework solutions. However, I will gladly help you with any of the problems during office hours or whenever I'm around.
- No whining.

Learning Outcomes

This course will be a comprehensive survey of linear algebra at the graduate level. The goals are two-fold – to prepare you for the linear algebra part of the prelim, and to build up a solid linear algebra foundation necessary for your other classes and your research, as Linear algebra is a beautiful subject that appears in nearly all areas of mathematics, *especially* in applied fields such as statistics, operations research, and computational mathematics.

Grading

The final grade will be calculated as follows:

HOMEWORK: 20%
MIDTERM 1: 20%
MIDTERM 2: 20%
FINAL EXAM: 40%

Homework

Homework assignments will accumulate from lecture to lecture and will be due several times a week. I will post the assignments on my website, as I like to make all materials freely available to everybody (Warning: Websites such as *Course Hero* are a SCAM!). Students can collaborate on their homework problems, but they *must*

write up and submit their homeworks separately. Late homeworks will **not** be accepted. You are encouraged to typeset your homework assignments (LATEX preferred but not required). You should keep all the graded homeworks in case of missing grades due to missing name or typo errors.

Key Dates August 17 (Wed) First day of class.

August 23 (Tue) Last day to register or add a class

August 30 (Tue) Last day to drop a class or withdraw from the University

without a W grade

October 21 (Fri) Last day to drop a class or withdraw from the University

without final grades

November 7–8 (M–Tu) Fall Break

November 23–25 (W–F) Thanksgiving Break December 2 (Fri) Last day of class

December 9 (Fri) Final Exam 8:00–10:30am

The official statement on Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a *high seminary of learning*. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

When in the opinion of a faculty member, there is evidence that a student has committed an act of academic dishonesty, the faculty member shall make a formal written charge of academic dishonesty including a description of the misconduct, to the Dean of the Graduate School. At the same time, the faculty member may, but is not required to, inform each involved student privately of the nature of the alleged charge.