MATH 2210Q-009
Applied Linear Algebra
http://www.math.uconn.edu/∼dgross/math2210f17
Fall 2017

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This is a shortened form of the more comprehensive and official online syllabus posted on the course homepage.

Meeting: Tu,Th 2:00 - 3:15 in MONT 320

Office Hours: M 2:30 - 3:30, Tu 9:30-10:30, and Th 10:00 - 11:00 or by appointment

Text: Linear Algebra And It's Applications, 5^{th} ed. by D. Lay, S. Lay and J. McDonald, Pearson Publishing.

Prerequisite: Math 1132Q or 1152Q

Note: This course is a prerequisite for Math 3210, 3510 and 3710 and is (highly) recommended for Math 3230.

Goals & Expectations: The goal for the semester is to learn, understand and be able to work with the vocabulary, algorithmic manipulations, main ideas and concepts of linear algebra, including systems of linear equations, matrices, vector spaces (concrete and abstract) and their bases, linear transformations and change of bases matrices, eigenvectors and eigenvalues, orthogonalization, various matrix factorizations, and the applications of these ideas. This does not only mean that you should be able to work through a bunch of questions similar to ones seen in the homework, but that you should have the ability to articulate the ideas presented in the course in a clear and coherent manner as well. You should be able to apply the theory in new and imaginative ways. This course will have concrete and abstract components. Being able to explain why something is true will constitute a significant part of the course.

Homework: As I am sure you already know, mathematics is not a spectator's sport – you need to work it if you're going to learn it! Homework will be assigned daily. Although it will not be collected, it is expected to be completed by the next class. It is also expected that you prepare for class by looking over before class the material in the book that will be discussed in class that day. The homework is posted online - see the online syllabus. I also fully expect you to be stuck on certain questions, perhaps all questions! That does not mean you give up on working the homework. It means you double down on studying and on getting help when needed. Everyone's arc of learning will be different. I encourage you to work with your classmates, ask me questions when you get stuck and visit the Q-Center (see the Help section in the online syllabus for more information and resources available to you).

Exams: There will be two exams, tentatively scheduled for Thursday, Oct. 6 and Thursday, Nov. 10. The first exam will cover the first two chapters and the second exam will cover chapters 3 and 4. There will be a comprehensive final exam covering material from chapters 1 through 7 (not all sections will be included). The final will be sometime from Mon. Dec. 12 through Sun. Dec. 18. The registrar will announce it sometime at the beginning of October. All exams will be closed notes and closed book.

Quizzes: Quizzes will be given sporadically throughout the semester, about every week or week and a half.

Grading:

Two exams	(25% each)
Quizzes	(15%)
Final Exam	(35%)

Academic Integrity: See the online statement about Academic Integrity at http://www.math.uconn.edu/∼dgross/math2210s16/#integrity.

TENTATIVE SYLLABUS

Aug. 20 (Tu) - Sept. 15 (Th)	Chapter 1 sections 1-9, except 1.6
Sept. 20 (Tu) - Sept. 29 (Th)	Chapter 2 sections 1-5, except 2.4
Oct. 4 (Tu)	Chapter 3 sections 1-2
Oct. 6 (Th)	Exam 1
Oct. 11 (Tu) - Oct. 13 (Th)	Chapter 3, sectons 2-3
Oct. 18 (Tu) - Nov. 8 (Tu)	Chapter 4 sections 1-7
Nov. 11 (Th)	Exam 2
Nov. 15 (Tu) - Nov. 17 (Th)	Chapter 5 sections 1-4
Nov. 29 (Tu) - Dec. 6 (Tu)	Chapter 6 sections 1-4
Dec. 8 (Th)	Chapter 7, sections 1 and 4
Dec. 12 (M) - Dec. 18 (Sun)	Final Exams

- Classes canceled from Sunday, Nov. 20 Through Saturday, Nov. 26 for Thanksgiving Recess.