Fall 2012

MAT 331: FIRST COURSE IN LINEAR ALGEBRA

Instructoror: Prof. Vincent Fatica,
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Office Hours: MTWTh 2:00-3:30

Course Description: The course will cover portions of (or all of) Chapters 1, 2, 3, 5, and 6 of the text. If time permits, portions of Chapter 4 may and other selected applications also be included.

Goals of this course: The student will gain an understanding of the basic ideas of linear algebra, including matrices and vectors and their properties and uses as well as vector spaces, vector sub-spaces, and linear transformations. The student will also gain an understanding of the notions of injectivity, surjectivity, basis, dimension, and eigen-analysis.

Course Restrictions: Credit will not be given for both MAT 331 and MAT 485.
Prerequisites: MAT 286 or MAT 296

Textbook: Linear Algebra and its Applications, 4^{th} ed.
Author: David C. Lay
Publisher: Addison-Wesley

Calculator Policy: Symbolic calculators, e.g., TI 89 or TI92 are not allowed. Standard scientific calculators are allowed in exams and quizzes, but students may need to show work for full credit.

Grading: The course grade will be based on two term exams (25% each), the comprehensive final exam (30%), and homework/quizzes (20%). The exams will be on the following dates:

Exam 1:	Thursday 27 September
Exam 2:	Thursday 1 November
Final:	Wednesday 12 December (* see below)

Make-up Exams: There will be no make-up exams.

Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Do not wait until just before the first test.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academic integrity.syr.edu.

Final Exam: The final exam will be during a two-hour period, to be announced later, in the interval 8:00 – 2:30 on Wednesday 12 December 2012. Do not make plans to leave campus before 2:30 on that day.

Please inform your instructor of any problems that you have with the course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor, Prof. Gregory Verchota (229A Physics Bldg, 443-1579).

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Your instructor may elect to grade some homework assignments and to use these in determining your final grade. It is *essential* to do all the homework in a timely fashion!

Section	Suggested Problems
1.1	11, 13, 15, 17, 19, 23, 24, 25
1.2	2, 5, 6, 11, 15, 19 (find all such values of h and k), 21, 23, 25
1.3	9, 11, 13, 15, 17, 21, 23(b-e), 25(b,c)
1.4	1, 3, 7, 9, 11, 15, 17, 19, 21, 23(b-e), 31, 33
1.5	1, 7, 11, 23, 29, 30, 31, 32
1.7	1, 5, 7, 9, 11, 15, 17, 19, 21, 31
1.8	1, 3, 5, 7, 8, 9, 13, 16, 17, 19, 21, 27
1.9	1, 3, 5, 7, 9, 17, 19, 23
2.1	1, 3, 5, 7, 11, 12, 15, 19, 20, 27, 28
2.2	1, 5, 9, 13, 15, 31, 32, 33, 35, 21, 22, 24
2.3	4, 8, 11, 13, 14, 15, 16, 17, 33, 35
2.8	1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25
2.9	1, 3, 5, 9, 11, 13, 15, 16, 17, 19, 20, 21, 22
3.1	9, 11, 13, 15, 17
3.2	15, 17, 19, 29, 31, 34
3.3	19, 21, 23, 27, 28
5.1	3, 5, 9, 13, 15, 17, 18, 19, 21, 25, 29
5.2	1, 3, 5, 7, 13, 15, 16
5.3	7, 9, 11, 13, 17, 21, 23, 25
6.1	5, 7, 9, 11, 15, 17
6.2	1, 5, 9, 11, 13, 15
6.3	3, 5, 7, 9, 11, 13
6.4	3, 5, 7, 9, 11

Selected topics from Chapter 4, 2.6, 4.9 (perhaps others)