

MAT 331 - FIRST COURSE IN LINEAR ALGEBRA
Spring 2013, section M001

Instructor: Professor Moira McDermott
Office: 305 Carnegie (Entrance is through 304. Look for “304G”.)
Office Phone: 443-1481
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Time & Place: MW 12:45 - 2:05, Carnegie 306
Office hours: MTWTh 3:30-4:30, F 11:30-12:30, and by appointment.

Course Supervisor: Dr. Jack Ucci, Professor of Mathematics; 229B Physics; jjucci@syr.edu; 443-1492. Please inform your instructor of any problems you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the Course Supervisor without delay.

Topics: Linear equations, Linear Transformations, Matrices, n -dimensional Euclidean Spaces, and Geometric aspects. This covers portions of (or all of) Chapters 1, 2, 3, 5, and 6 of the text.

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

Textbook: *Linear Algebra and its Applications, 4th edition.*, David C. Lay, Addison Wesley.

Calculators: You are allowed to use a graphing calculator on homework, quizzes, and exams for this class, including the final. Students may need to show work to receive full credit. The use of a symbolic calculator (such as the TI-89 or the TI-Nspire with CAS) will not be allowed on quizzes or exams. There may be quizzes or portions of tests that are designated *no calculator*

Grading:

Exam 1:	Feb. 15	20%
Exam 2:	Mar. 22	20%
Exam 3:	Apr. 26	20%
Final exam:	Monday, May 6	20%
Quizzes & homework:		20%

Exams will be given in class. The final exam will be cumulative. There will be no makeups for the in class exams or the final exam. If you have an excused absence for one of the tests, your grade on the relevant portion of the final will be used to replace the missing score. The final exam is scheduled for **Monday, May 6, 2013**, sometime between **8:00 AM and 2:30 PM**. The exact time and location will be announced in class after midterm. This information will also be available on MySlice. **You should not make plans to leave campus before 2:30 PM on Monday, May 6. The final exam will *not* be given at any other time.**

Homework: The key to success in this course is to master the homework. Homework will be assigned at each class and collected weekly. **Late homework will not be accepted.** A portion of the homework problems will be graded for accuracy. You are encouraged to discuss the homework problems with your classmates and to work together, but the work you submit must be your own.

Copying a homework solution, in part or in full, is considered a violation of academic integrity.

Quizzes: There will be a quiz given in class about every week. At least one quiz score will be dropped when determining your grade.

Attendance: You are expected to attend every lecture, quiz, exam, and the final exam. If you miss a class, it is your responsibility to get lecture notes for that class from another student. You are also responsible for any announcements about changes to the course schedule or exam schedule, or other administrative announcements that were made in that class. Many of these will be available on BlackBoard.

Academic Integrity: The Syracuse University Academic Integrity Policy governs the work completed in this course. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academic_integrity.syr.edu.

The first violation of this policy on a quiz or exam will result in a 0 on that quiz or exam, and the appropriate Dean will be notified. The second such violation will result in failing the course as well as notification of the appropriate Dean.

Faith Tradition Observance: SU's religious observances policy can be found at http://supolicies.syr.edu/emp_ben/religious_observance.htm. Under the policy, students are provided an opportunity to make up any examination, study, or work requirement that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. There is an online notification process available on MySlice.

Students with 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.

Helpful Warnings:

1. This course is quite different from the calculus courses you have taken previously. Linear algebra is not "the next course" in a long list of math courses. Calculus is part of the general area of mathematics known as *analysis*, while linear algebra is found in the general area of *algebra*.
2. Don't fall behind! The material builds upon itself *rapidly!* Keep up on a daily basis.
3. Some of the beginning material is computational. The material quickly becomes more conceptual. Do not be lulled into a false sense of security by the computational material.

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Section Homework 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, 25, 26
- 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, 28, 29, 30, 31
- 1.7 1, 5, 7, 9, 11, 15, 17, 19, 21, 31
- 1.8 1, 3, 5, 7, 8, 9, 13, 15, 17, 19, 21, 26
- 1.9 1, 3, 5, 7, 8, 17, 19, 23
- 2.1 1, 3, 5, 7, 11, 12, 15, 18, 19, 27, 28
- 2.2 1, 5, 9, 13, 1, 31, 32, 33, 35, 21, 22, 24
- 2.3 4, 8, 11, 13, 14, 15, 16, 17, 33, 35
- 2.7 2, 3, 5, 7
- 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