

MAT 531

Second Course in Linear Algebra

Fall 2012

Instructor: Prof. Jeffrey L. Meyer

Office: 206 F Carnegie Hall **Phone:** 443-1479 **E-Mail:** jlmeye01@syr.edu.

Office Hours: 11:00-11:45 pm TTh and 10:00-11:30 am W. Other times by appointment.

Textbook: *Linear Algebra*, by Friedberg, Insel, and Spence, Fourth Edition, Prentice Hall, 2003.

The course covers parts of Chapters 1, 2, 5, and 6, with possible additions.

Official Course Description: Abstract vector spaces and inner product spaces, linear transformations and linear operators, eigenvalues and diagonalization. Primarily for mathematics majors. Prereq: MAT 275 or CIS 275, and MAT 331.

Course Overview and Goal: The main goal of this course is to give a rigorous proof-based treatment of linear algebra. Some of the concepts will be familiar to you from MAT 331, however, you will probably find this course completely different from MAT 331. For one, there will be a strong emphasis on developing proof-writing skills. Secondly, the material will be developed in a more abstract setting, mostly by learning definitions and proving theorems.

Exams: There will be two midterm exams and a cumulative final examination.

- Exam 1 is tentatively scheduled for Tuesday, October 9, 2012.
- Exam 2 is tentatively scheduled for Thursday, November 15, 2012.
- The Final Exam is scheduled for Thursday, December 13, 2012, 3:00 - 5:00 pm.

Make-up Exams: There are no make-up exams. The departmental policy for a missed exam is that, provided the student can justify the absence and informs the instructor **before** the exam, the student's grade on the relevant portion of the final exam will be substituted for the missing grade. Typically, students will not be allowed to make up more than one exam this way. If a student cannot justify the absence from an exam or fails to inform the instructor before the exam, then the student will receive a grade of zero for that exam.

Homework: Homework problems to be collected and graded will be assigned regularly (roughly every week). Working independently on the assignments will probably help you to learn the material more effectively and to do better on exams. However, you may (and sometimes should) work with others to fully understand the material. You must write your own solutions to homework problems. You are encouraged to see me for help. Late homework will not be accepted for credit. At least one homework score will be dropped from the grade calculation. You should not limit your practice to the assigned problems. Find and do other problems. You may ask about any linear algebra problems during class. In addition to problems from our text that I have not assigned, there are other sources of problems including other texts and problem books.

Attendance: Students are expected to attend every class, every exam, and the final exam.

Grades: The course grade will be based on the following percentages:

- the two midterm exams each count 25%;
- homework counts 20% ;
- the final exam counts 30% .

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://academicintegrity.syr.edu>

Students with Disabilities: Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498, TDD: (315) 443-1371, E-Mail: odssched@syr.edu, and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance. For more information about services and policy, see the Office of Disability Services.