

Fall 2017
MAT 331-5: FIRST COURSE IN LINEAR ALGEBRA

Course Instructor: Jack Ucci, Professor of Mathematics; 306B Carnegie
jjucci@syr.edu 3-1492

Office Hours: M 8:30-9:30 am; TuTh 8:30 -9:20 am, and by apt

Course Supervisor: Professor Shen

Course Hours TuTh 9:30 – 10:50 AM 119 Carnegie

Course Information: Course Description: linear equations, linear transformations, matrices, n -dimensional Euclidean spaces, associated geometry. Understanding the course material beyond mechanical computation will get special emphasis.
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, 5th edition. David C. Lay, Steven R. Lay, Judi J. McDonald, Publisher: Pearson

Calculator Policy: You are NOT allowed to use a graphing or symbolic calculator on quizzes or exams for this class. In particular no use of calculators will be permitted on quizzes or exams. You may use it on homework when appropriate.

Homework/Quiz Policy: Homework will be assigned in class (see pages 3, 4). A policy for the collection of homework for grading and for quizzes will be announced during the first class meeting. There will be **no** make-ups for exams or quizzes. Late homework may not be graded.

Grading Policy: Homework/quizzes will comprise 20% of the course grade with two midterm exams, each 25%, and the final exam 30%. A letter grade will be given according to the following scale:

| | | | | |
|------------|------------|------------|-----------|------------|
| A (93-100) | A- (90-92) | B+ (87-89) | B (83-86) | B- (80-82) |
| C+ (77-79) | C (73-76) | C- (70-72) | D (60-69) | F (0-59) |

Exam Dates: E1 10/3/17; E2 11/7/17. FE Monday, 12/13/17, 8 - 2:30,
Do not plan to leave the campus before 3 pm on 12/13/17.

Students with Disabilities: If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), visit the ODS website– <http://disabilityservices.syr.edu>, located in Room 309 of 804 University Avenue, or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Academic Integrity: Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The university policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same written work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the university's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see <http://class.syr.edu/academic-integrity/policy/>.

Religious observances policy. Syracuse University Religious Observances Policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors no later than the end of the second week of classes for regular session classes and by the submission deadline for flexibly formatted classes. Student deadlines are posted in MySlice under Student Services/Enrollment/My Religious Observances/Add a Notification.

Please inform me of any problems that you have with the course. Problems not satisfactorily resolved by me should then be brought to the attention of the Course Supervisor.

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, 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, 17, 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

331 Lecture Schedule

| Lectures | Sections |
|---------------|------------------|
| 8/29 - 18/31 | 1.1, 1.2, 1.3 |
| 9/5 - 9/7 | 1.3, 1.4, 1.5 |
| 9/12 - 9/14 | 1.7, 1.8 |
| 9/19 - 9/21 | 1.9, 2.1, 2.2 |
| 9/26 - 9/28 | 2.2, 2.3, Review |
| 10/3 - 10/5 | E1, 2.7, 2.8 |
| 10/10 - 10/12 | 3.1, 3.2 |
| 10/17 - 10/19 | 3.3, 5.1 |
| 10/24 - 10/26 | 5.2 |
| 10/31 - 11/2 | 5.3, Review |
| 11/7 - 11/9 | E2, 6.1 |
| 11/14 - 11/16 | 6.2, 6.3 |
| 11/28 - 11/30 | 6.4 |
| 12/5 - 12/7 | Review |
| 1/19 - 1/21 | 1.1, 1.2, 1.3 |
| 1/26 - 1/28 | 1.3, 1.4, 1.5 |
| 2/2 - 2.4 | 1.7, 1.8 |
| 2/9 - 2/11 | 1.9, 2.1, 2.2 |
| 2/16 - 2/18 | 2.2, 2.3, Review |
| 2/23 - 2/25 | E1, 2.7, 2.8 |
| 3/1 - 3/3 | 2.8, 2.9 |
| 3/8 - 3/10 | 3.1, 3.2 |
| 3/22 - 3/24 | 3.3, 5.1 |
| 3/29 - 3/31 | 5.2 |
| 4/5 - 4/7 | 5.3, Review |
| 4/12 - 4/14 | E2, 6.1 |
| 4/19 - 4/21 | 6.2, 6.3 |
| 4/26 - 4/28 | 6.4 |
| 5/3 | Review |