

# Math 2700 (Linear Algebra & Vector Geometry)

## Spring 2010, UNT

**Lecture:** LANG 302, TR 2:00-3:20pm

**Instructor:** Professor Olav Richter

- **Office:** GAB 418 B
- **Office hours:** TR 3:30-5:00pm, F 9:00-10:00am, and by appointment
- **Phone:** 565-4352
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**Course Description:** In Math 2700, we will cover linear equations in linear algebra, matrix algebra, determinants, vector spaces, eigenvalues and eigenvectors, and orthogonality.

**Prerequisites for Math 2700:** Math 1720.

**Textbook:**

- **Title:** Linear Algebra and Its Applications, 3/E
- **Authors:** David Lay
- **Publisher:** Addison-Wesley Publishing Company

**Exams & Grading Policy:** Your final grade will be based on homework (your two lowest homework scores will be dropped), two midterms, and a comprehensive final. The midterms will be on March 9th and on April 20th. The final exam will be on May 11th. Please make sure that you are available at those dates, since there will be NO make up exams!

The grade is comprised of

- Homework (20%),
- 2 Midterms (40%),
- Comprehensive Final (40%).

You are encouraged to study together and help each other throughout the semester. If everyone does well, everyone will receive a good grade.

**Homework:** I will announce homework assignments in class. The assignments are *usually* due on Thursdays at the beginning of each class period. Late homework will **NOT** be accepted for any reason. Your two lowest homework scores will be dropped.

## Homework Problems

Section	Problems
1.1	4, 10, 12, 16, 18, 22, 30
1.2	4, 10, 12, 20, 23, 24
1.3	4, 8, 10, 12, 14, 18, 28, 32
1.4	2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 32, 34
1.5	2, 4, 6, 8, 10, 12, 14, 16, 22, 32, 36
1.7	6, 8, 10, 12, 23, 25, 26, 27, 28, 32, 40
1.8	1, 6, 7, 10, 12, 15, 16, 20, 24, 25, 31
2.1	1, 3, 6, 7, 8, 9, 12, 18, 22, 26, 27
2.2	3, 6, 16, 21, 22, 30, 31, 32, 33, 34, 35
2.3	2, 4, 6, 8, 13, 15, 18, 22, 26
3.1	3, 5, 8, 9, 10, 14, 17, 22, 23, 24, 25, 27, 29, 33, 34, 35, 42
3.2	3, 5, 9, 10, 15, 18, 19, 23, 26, 29
3.3	3, 5, 13
4.1	1, 2, 10, 12, 18, 21, 22, 31, 32
4.2	6, 10, 14, 16, 24, 33, 35, 36
4.3	4, 6, 8, 10, 14, 16, 20, 23, 24, 29, 30, 31, 32
4.5	4, 6, 8, 10, 12, 14, 16, 18, 26, 31
4.6	2, 4, 6, 8, 10, 12, 14, 16, 20, 29, 30
5.1	2, 4, 6, 8, 12, 14, 16, 18, 24, 26, 29
5.2	4, 8, 12, 14, 16, 20, 23, 24, 25
5.3	4, 6, 8, 10, 12, 16, 19, 27, 28
6.1	1, 3, 5, 7, 10, 14, 16, 18, 25, 28, 31
6.2	2, 6, 8, 10, 12, 14, 16, 18, 20
6.3	2, 6, 8, 12, 17, 18

**Need extra help?** You may want to check out the UNT Math Lab (in GAB 440) to get extra help with the homework. Hours (Jan 25-May 8): Mo-Th 7am-9pm; Fr 7am-4pm; Sa 12pm-5pm (closed Sundays and Holidays). Furthermore, <http://www.math.odu.edu/~bogacki/cgi-bin/lat.cgi> is a useful website. It can solve many linear algebra problems and show you step-by-step how to solve them.

**Expectations:** You should come to every lecture. It is your responsibility to obtain notes from another student if you miss class. You are expected to read the assigned sections and work on the homework problems immediately after they are assigned. In addition to attending lecture, you should spend at least 6 hours per week on my course.

**Extra Credit:** Do NOT expect to be able to do some extra work to help your grade either before or after the final exam. There will be NO extra credit other than perhaps an extra problem on an exam.

**Disabilities:** It is the responsibility of students with certified disabilities to provide the instructor with appropriate documentation from the Dean of Students Office.

**Cheating:** No cheating will be tolerated. Anyone caught cheating will receive an F in the course. Furthermore, a letter will be sent to the appropriate dean.

**Lecture schedule:** The following *Tentative Lecture Schedule* gives you an idea what material I *intend* to cover in this class, but note that the schedule *might change* often. You are responsible for all announcements/assignments made in class!

Tentative Lecture Schedule

Tu Jan 19 1.1	Th Jan 21 1.2	Tu Jan 26 1.3	Th Jan 28 1.4+HW	Tu Feb 2 1.5	Th Feb 4 1.7+HW	Tu Feb 9 1.8	Th Feb 11 2.1+HW
Tu Feb 16 2.2	Th Feb 18 2.3+HW	Tu Feb 23 3.1	Th Feb 25 3.2+HW	Tu Mar 2 3.2+3.3	Th Mar 4 Review	Tu Mar 9 Midterm	Th Mar 11 Discussion
Tu Mar 23 4.1+4.2	Th Mar 25 4.2+4.3	Tu Mar 30 4.3+4.5	Th Apr 1 4.6+HW	Tu Apr 6 5.1	Th Apr 8 5.2+HW	Tu Apr 13 5.3	Th Apr 15 Review
Tu Apr 20 Midterm	Th Apr 22 6.1	Tu Apr 27 6.2	Th Apr 29 6.3+HW	Tu May 4 Review	Th May 6 Review+HW		Tu May 11 FINAL 1:30-3:30pm