

Lecture:

M W F 9:00 – 9:50 a.m. in BLB 225

Instructor:

Dr. Huguette Tran

Office: GAB 421

E-mail: huguette.tran@unt.edu (Do not email me to inform me of your tardiness or absence)

Office Hours: Mondays, Wednesdays, and Fridays 11:00am – 12:00pm; Thursday 8:00am – 9:20am. You may request extra office hours.

Prerequisite(s): Math 1720

Text: David Lay, *Linear Algebra and Its Applications* Sixth Edition.

Grades:

There will be five components to your final grade, weighted as follows:

- Two In-Class Tests (Wednesday 10/12/2022 and Friday 12/02/2022) and Final Exam: 60%
- Quizzes (on most Mondays): 20%
- Homework: 15%
- Attendance: 5%

Detailed Description of Course Requirements

Homework and Quizzes

You are allowed and encouraged to work on homework assignments together with your classmates. However, copying verbatim (either from the solution manual or from your classmates) is not acceptable. You need to write your solutions very carefully with full explanations. Quizzes will be given twice every week. No make-up quizzes will be given and no late homework will be accepted. Two lowest written homework scores will be dropped before final grades are computed.

Tests: Under no circumstances will early or make up tests will be given. Travel plans are not valid excuses for not taking the final at its scheduled time. You may use the lowest of Attendance, Homework Average, Quiz Average, Test 1, and Test 2 as your missing test grade.

Class Recordings:

During class time (including exams) students are forbidden to have on the table or use electronic devices such as laptop computers, tablets, iPads and the like, Blackberries, cell phones, Bluetooth devices, or anything that uses headphones, earphones, ear buds or the like (except in special cases where students have verified disabilities that require such devices). If you do not comply with this policy, you will be marked absent.

Classroom Policy:

During class time (including exams) students are forbidden to have on the table or use electronic devices such as laptop computers, tablets, iPads and the like, Blackberries, cell phones, Bluetooth devices, or anything that uses headphones, earphones, ear buds or the like (except in special cases where students have verified disabilities that require such devices). If you do not comply with this policy, you will be marked absent. **For each hour that you are marked absent, you will lose 5 (out of 100) attendance points.**

The following is a list of activities that I expect students to avoid. Most of students, no doubt, are responsible individuals to whom these issues are totally obvious. My desire is not to treat students like children. It is, however, important to communicate the basic expectations in order to remove any ambiguity and excuse. Students should know that I will demand mature and courteous behavior and will not tolerate behavior that is disrespectful, rude, or otherwise disruptive, in any way, to the dissemination and/or exchange of information.

I reserve the right to deduct points in the event that you do not comply with these expectations, in addition to other disciplinary consequences associate to the UNT student codes of conduct.

- Turn cell phones and other electronic devices off before you enter the classroom), keep them off, and do not get them out during class. **Any cell phone or electronic device nonsense will result in your being marked absent.**
- Students are expected to come to class on time. If you come to class at least 10 minutes late, you will be marked absent. If you know that on occasion you will be late, then you should speak to me about it. Recall that quizzes will be administered and homework collected at the beginning of class.
- Students are expected to remain for the entire class period. **If you leave class early or leave class for any period of time, you will be marked absent.** If you anticipate having to leave early for some reason, then I expect you to speak to me beforehand.
- Do not read or work on materials not pertaining directly to this specific course. If you want to read or study for other classes, do so outside of this class.

Student Behavior:

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom may be referred to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr

Academic Dishonesty: Students caught cheating or plagiarizing will be subject to any penalty the instructor deems appropriate, ranging from receiving 0 (zero) points on that particular assignment to course failure. Additionally, the incident will be reported to the Office of Academic Integrity, who may impose further penalty.

According to the UNT catalog, the term "cheating" includes, but is not limited to:

- (a) use of any unauthorized assistance in taking quizzes, tests, or examinations;
- (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- (c) the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university;
- (d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or
- (e) any other act designed to give a student an unfair advantage.

Furthermore, attempts to circumvent LockDown Browser or Monitor (e.g., obstructing your webcam or microphone) during a quiz or exam will automatically be considered cheating.

The term "plagiarism" includes, but is not limited to:

- (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and
- (b) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

Disability Accommodations:

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any

delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at <http://www.unt.edu/oda>. You may also contact them by phone at 940-565-4323.

Course Description

Linear Algebra is the study of systematic methods for solving systems of linear equations, often in many variables. Linear equations are the simplest forms of equations, but they are also the most commonly occurring across business, science and engineering. Although it will not be the emphasis of this course, the methods we will discuss are easily programmed on a computer and the methods of linear algebra can be used to automate the process of solving linear systems. The structure of these methods is often most clearly seen using the algebra of matrices, so matrix algebra will also be a significant portion of the course. Finally, linear algebra is often the first course where a mathematics student experiences “abstraction” and working through more theoretical aspects of the subject helps students develop logical thinking skills and good proof technique.

Learning Objectives

Math 2700 contributes to the following mathematics undergraduate program objectives:

Mathematical Reasoning

- MR 1. Read, understand, formulate, explain, and apply mathematical statements.
- MR 2. Formulate conjectures by considering examples that move from the specific to the general.
- MR 3. Distinguish between valid and fallacious arguments.
- MR 4. State and apply important results in key mathematical areas, with the ability to provide proof-based arguments of these and related results.
- MR 5. Use a variety of techniques – such as, mathematical induction, proof by contradiction, or direct application of axioms and previously proven theorems – to prove propositions.

Applying Mathematics

- AM 1. Demonstrate knowledge of problem-formulation, problem solving, and modeling techniques central to applications of mathematics.
- AM 3. Represent functional relationships using numerical, graphical, and/or analytic/symbolic means.

General skills

- GS 1. Solve mathematical problems individually and cooperatively.
- GS 2. Formulate strategies for solving novel analytical – both theoretical and applied – problems.

GS 3. Communicate, both verbally and in writing, mathematical ideas at a variety of levels from technical

Where to Get Help

Instructors' Office Hours: Your professor is here to help you learn. You are encouraged to take full advantage of my office hours. No appointment is necessary to see me during my regularly scheduled office hours. If you cannot make the regularly scheduled office hours, ask for an appointment for another time.

Math Lab: The Math Lab located in first floor of SAGE offers free tutoring. The Math Lab is open from 7:00 a.m. until 8:00 p.m. Mondays–Thursdays, from 7–4 on Fridays, and from 12–5 p.m. on Saturdays. The Math Lab is NOT open during the first week of class nor during finals week.