

## MATH 2700-220/Linear Algebra & Vector Geometry (MWF 12pm-12:50pm Lang 316)

### Instructor Contact

**Name:** Dr. Huguette Tran

**Pronouns:** (she/her/hers)

**Office Location:** GAB 421

**Office Hours:**

Face to face tutoring session/office hours MWF 11am -11:50am and Th 8:00am-9:15am in GAB 421;

Remote tutoring session Th 12:00pm-12:50pm, meeting ID 865 3328 8419.

I encourage you to attend the remote tutoring sessions or visit me during the face-to-face office hours for additional help. You do not need to make any appointment for these sessions.

*IMPORTANT:* This course may employ lecture capture technology to record the remote tutoring sessions and students may occasionally appear on video. The lecture recordings may be available to you for study purposes and may also be reused in future course offerings.

**Email:** [Huguette.Tran@unt.edu](mailto:Huguette.Tran@unt.edu)

**Communication Expectations:**

For course related issues, I prefer that you contact me using Canvas message system and I will reply within the next business day. My office phone is not available.

While I want to make myself as available as possible to each of you, I do have to place some limitations on when I can be contacted. I will respond within 24 hours on weekdays (usually sooner). Please do not expect a response over the weekend.

### Course Description

Vector spaces over the real number field; applications to systems of linear equations, linear transformations, matrices, determinants, and eigenvalues.

### Course Structure

This class is face-to-face class; starting August 23, 2021 and having a final exam on Wednesday, December 8 at 10:30am-12:30pm. There are approximately 14-15 full weeks corresponding to 14-15 modules set up on Canvas.

Homework will be submitted online on Canvas, as pdf files, each week before class on Wednesdays. No late homework is accepted. Two lowest homework scores will be dropped before the semester average is computed.

Quizzes will be administered in-class and at the end of class on Fridays; the lowest quiz score will be dropped before the semester average is computed. You may be asked to submit quizzes online to reduce social contacts. Midterms will be administered in- class at the dates and times specified below.

If the class becomes online, quizzes and exams will be administered under Lockdown Browser with Webcam.

Tentative Exam Dates (Subject to Change):

- Midterm 1: Friday October 1, 2021
- Midterm 2: Friday November 12, 2021
- Final Exam: Wednesday December 8 at 10:30am-12:30pm

## Course Prerequisites or Other Restrictions

Math 1720 (Calculus II)

## Course Objectives

Upon successful completion of this course, students will be able to:

- Solve linear systems of equations using a variety of different methods.
- Identify linear independent (or dependent) sets of vectors.
- Apply methods of solving linear systems to a variety of science, engineering, and business problems.
- Perform matrix operations such as addition and multiplication.
- Find matrix inverses and determinants.
- Identify invertible (or non-invertible) matrices and understand equivalent properties.
- Recognize vector spaces, subspaces, and bases.
- Compute the dimension of subspaces and find bases for subspaces.
- Change coordinates from one basis to another.
- Find the eigenvalues and eigenvectors of matrices and use this information to diagonalize matrices if possible.
- Use eigenvalues and eigenvectors to solve application problems.
- Identify orthogonal set and find orthogonal projections.
- Create an orthogonal basis from an arbitrary basis.

## Materials

Linear Algebra and Its Applications by David Lay, Stephen Lay, Judi MacDonald (5th edition). The eBook ISBN is 9780134013473 listed for \$44.99. This subscription lasts the student 180 days. The students also have the option on VitalSource.com to purchase the lifetime subscription for \$64.99. <https://www.vitalsource.com/publisher/products/linear-algebra-and-its-applications-david-c-lay-v9780134013473?term=9780134013473>

## Teaching Philosophy

To be successful in this class, students need to study the notes of the latest lecture before coming to class, attempt all assigned homeworks on their own, use any available solutions for the assigned problems only as a guideline, write clearly all the steps for your solutions, and seek help immediately to clarify issues that may arise. I hope that you will take advantage of my availability during the office hours/tutoring sessions to achieve the success.

## Course Technology & Skills

### Minimum Technology Requirements

- Minimum technology requirements for students, such as:
- Computer
- Reliable internet access to submit homework (and possibly quizzes and exams)
- Lockdown Browser with Webcam (which can be downloaded from Canvas)
- Reliable scanner or scanning app to convert your written work to pdf files
- [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (https://clear.unt.edu/supported-technologies/canvas/requirements)

### Computer Skills & Digital Literacy

- Course-specific technical skills learners must have to succeed in the course:
- Using Canvas
- Using email with attachments
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs

## Course Requirements

There will be one homework (HW) and one quiz per week, two mid-terms and a final exam; each is worth 100 points. As the table below clearly indicates, points for different categories contribute differently to the final grade.

<b>Assignment</b>	<b>Points Possible</b>	<b>Percentage of Final Grade</b>
<b>13 HWs – Uploaded to Canvas (the lowest score will be dropped before the calculation of the final grade for occasional emergency or illness)</b>	100 points/HW	15%
<b>13 Quizzes – In-class or uploaded to Canvas (the lowest score will be dropped before the calculation of the final grade for occasional emergency or illness)</b>	100 points/Quiz	20%
<b>Exam 1</b>	100 points	21.66667%
<b>Exam 2</b>	100 points	21.66667%

<b>Assignment</b>	<b>Points Possible</b>	<b>Percentage of Final Grade</b>
<b>Final Exam</b>	100 points	21.66667%
<b>Total Points Possible</b>	2900 points	100%

## Grading

A : 90% or more

B : 80% - 89.99999%

C : 70% - 79.99999%

D : 60% - 69.99999%

F : 60% or less

Because students are given ample of opportunities to improve their grades, their final grades will not be rounded.

## Course Policies

### Attendance

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

### Class Participation

Classroom participation is strongly encouraged since this activity enhances students' public speaking skills which are valuable to their success.

### Late Work

UNT instructors have the prerogative to accept or not to accept late work.

Late HWs are not accepted for any reason since it is difficult for graders, who are also students, to grade late HWs. No make-up quizzes and exams for the same reason. However, if you are absent and have a valid reason sanctioned by the university, you may use the scores of later HW, quizzes, and exams to replace the missing scores with the permission from the instructor.

### Examination Policy

Quizzes, mid-term exams, and final exams are closed-book exams. If the class become on-line and should a student lose Internet connection during a quiz or an exam, the student can use the score of the

next quiz, the next exam, or the final to replace the score of the quiz or exam that is disrupted. Please contact the Student Helpdesk and document the remedy ticket number before contacting me.

### Assignment Policy

The official due dates for each assignment as well as assignment-instructions, what file type assignments should be saved as (all are pdfs), and where/how files should be submitted are available on Canvas. If UNT server becomes unavailable during your submission, please inform me immediately.

### Instructor Responsibilities and Feedback

- My responsibilities include helping students grow and learn, providing clear instructions for projects and assessments, answering questions about assignments, identifying additional resources as necessary, providing grading rubrics, reviewing and updating course content.
- While I want to make myself as available as possible to each of you, I do have to place some limitations on when I can be contacted. I will respond within 24 hours on weekdays (usually sooner). Please do not expect a response over the weekend.
- I grade the exams thoroughly and usually add comments to help you learn. I will return the exams within two weeks of submission.
- The grading of HWs and quizzes is typically completed within one week of submission, unless the grader has valid excuse regarding the completion of the grading.

### Syllabus Change Policy

Any change in the syllabus, due dates of HWs and quizzes, as well as exam dates will be announced on Canvas.

### Welcome to UNT!

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT's full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

### Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.

- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

See these [Engagement Guidelines](https://clear.unt.edu/online-communication-tips) (https://clear.unt.edu/online-communication-tips) for more information.

## COVID

### Face Coverings

UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions.

### Symptoms

If you are experiencing any [symptoms of COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or [askSHWC@unt.edu](mailto:askSHWC@unt.edu)) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at [COVID@unt.edu](mailto:COVID@unt.edu) for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

### Course Materials for Remote Instruction

Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to appropriate technology as specified by the instructor (e.g. webcam and microphone) to participate in fully remote portions of the class. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

## Online Course System

The University is committed to providing a reliable online course system to all users. However, part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

**UIT Help Desk:** [UIT Student Help Desk site](https://www.unt.edu/helpdesk) (<https://www.unt.edu/helpdesk>)

**Email:** [helpdesk@unt.edu](mailto:helpdesk@unt.edu)

**Phone:** 940-565-2324

**In Person:** Sage Hall, Room 130

**Walk-In Availability:** 8am-9pm

**Telephone Availability:**

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

**Laptop Checkout:** 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (<https://community.canvaslms.com/docs/DOC-10554-4212710328>)

## UNT Policies

### Academic Integrity Policy

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

### ADA Policy

UNT 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 a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students 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 [ODA website](https://disability.unt.edu/) (<https://disability.unt.edu/>).

### Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability,

genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

### Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

### Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

### Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students 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. Visit UNT's [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

### Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: [my.unt.edu](https://my.unt.edu). All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

### Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](mailto:no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (http://spot.unt.edu/) or email [spot@unt.edu](mailto:spot@unt.edu).



## Survivor Advocacy

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking and/or sexual assault, there are campus resources available to provide support and assistance. The Survivor Advocates can be reached at [SurvivorAdvocate@unt.edu](mailto:SurvivorAdvocate@unt.edu) or by calling the Dean of Students Office at 940-5652648.

## Important Notice for F-1 Students taking Distance Education Courses

### Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

### University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email [internationaladvising@unt.edu](mailto:internationaladvising@unt.edu)) to get clarification before the one-week deadline.

## Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (<https://policy.unt.edu/policy/07-002>).

## Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Download the UNT System Permission, Waiver and Release Form

## Transmission and Recording of Student Images in Electronically-Delivered Courses

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

## Class Recordings & Student Likenesses

In case synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester: Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

## Academic Support & Student Services

### Student Support Services

#### *Mental Health*

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center) (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (https://studentaffairs.unt.edu/care)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry) (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling) (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

#### *Chosen Names*

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](#)
- [UNT ID Card](#)
- [UNT Email Address](#)
- [Legal Name](#)

*\*UNT eUIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

#### *Pronouns*

Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don't assume someone's name, we should also ask and not assume someone's pronouns.

You can [add your pronouns to your Canvas account](#) so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- [What are pronouns and why are they important?](#)
- [How do I use pronouns?](#)
- [How do I share my pronouns?](#)
- [How do I ask for another person's pronouns?](#)
- [How do I correct myself or others when the wrong pronoun is used?](#)

*Additional Student Support Services*

- Registrar (<https://registrar.unt.edu/registration>)
- [Financial Aid](https://financialaid.unt.edu/) (<https://financialaid.unt.edu/>)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services) (<https://studentaffairs.unt.edu/student-legal-services>)
- [Career Center](https://studentaffairs.unt.edu/career-center) (<https://studentaffairs.unt.edu/career-center>)
- [Multicultural Center](https://idea.unt.edu/multicultural-center) (<https://idea.unt.edu/multicultural-center>)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (<https://studentaffairs.unt.edu/counseling-and-testing-services>)
- [Pride Alliance](https://idea.unt.edu/pridealliance) (<https://idea.unt.edu/pridealliance>)
- [UNT Food Pantry](https://studentaffairs.unt.edu/food-pantry) (<https://studentaffairs.unt.edu/food-pantry>)

*Academic Support Services*

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources) (<https://clear.unt.edu/canvas/student-resources>)
- [Academic Success Center](https://success.unt.edu/asc) (<https://success.unt.edu/asc>)
- [UNT Libraries](https://library.unt.edu/) (<https://library.unt.edu/>)
- [Writing Center](https://writingcenter.unt.edu/) (<https://writingcenter.unt.edu/>)
- [Math Lab](https://learningcenter.unt.edu/math-lab) (<https://learningcenter.unt.edu/math-lab>)