

2025 Fall Math 1580.007 Survey of Math with Applications

August 18 – December 12

Instructor Information

Name: Ms. Barber

Class Meets: Life A 106, Tuesday & Thursday, 9:30 am – 10:50 am

Office Location: GAB 459

Office Hours: Tuesday & Thursday, 1:30 pm – 3:00 pm, other times by appointment.

I'm here to support your learning and success. Use office hours for questions, review, and assignment help. If these times conflict with your course schedule, we can arrange a mutually convenient time.

How to Contact Me

Message me when you have questions, need clarification, or want to let me know about anything affecting your course participation.

- **Canvas Inbox (preferred):** Best way to reach me.
- **UNT Email:** Include "MATH 1580.007" in the subject and use your official UNT email account.

I respond within one business day. Follow up if you don't hear back, and please keep communication respectful and professional, as per [UNT's General Online Communication Guidelines](#).

Course Overview

This course is designed to build your mathematical problem-solving skills through engaging, real-world applications. You'll explore topics including personal finance, apportionment methods, set theory, probability and statistics, and graph theory. Beyond the math itself, you'll strengthen critical thinking, adaptability, and resilience, skills that extend far beyond this class.

Catalog Course Description

3 hours. Topics include probability, statistics, algebra, logic, and the mathematics of finance. Additional topics are selected from geometry, sets, cryptography, fair division, voting theory, and graph theory. Emphasis on applications. Recreational and historical aspects of selected topics are also included. Technology is used extensively.

Note: This course does not serve as preparation for calculus, science, engineering, or business courses.

Course Prerequisite and Other Readiness Expectations

- **TSI Complete in Math**
- **Purposeful Effort:** Stay engaged, practice regularly, and turn your efforts into results.
- **Digital Literacy:**
 - Navigate Canvas.
 - Complete assignments online.
 - Download and print required course materials.

Course Format and Canvas Modules

- **In-Person Attendance:** This course meets twice a week on campus. Arrive on time, stay for the full class, and minimize distractions, your contribution supports everyone's learning. No remote option is available.
- **Course Modules on Canvas:** The first module is already available; new modules unlock as the course progresses.

Course Objectives

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

- Solve problems involving voting and apportionment methods.
- Apply mathematical models to solve personal finance problems.
- Use set theory concepts to construct Venn diagrams and solve related problems.
- Interpret, analyze, and draw conclusions from data representations.
- Apply fundamental principles of probability and counting techniques to solve problems.
- Use graph theory to model and solve application-based problems.

Required Course Material

Pearson MyLabs Math (MLM) Requirement

This web-based platform hosts most homework, the e-text, and additional resources. Access is required.

MLM Includes:

- Homework assignments for each module
- *Thinking Mathematically* by Robert Blitzer (8th Edition) e-text
- Additional learning resources

Access MLM

- Register via the Access Pearson link in Canvas using your official UNT name.
- **Deadline:** Register by the second day of the term.
- **Trial Access:** 14-day trial available if you have not used it previously. Purchase full access before the trial ends to retain progress.

Note-taking Materials

- Fill-in student notes (Canvas)
- Paper and pencil/pen for class notes and exercises

Calculator

- Use a TI-36 or a basic graphing calculator (TI-84 or equivalent). Instruction is provided only these models.

Technology Requirements

To complete this course, you need:

- A desktop, laptop, or tablet compatible with Canvas and required software
- Smartphones are **not** sufficient
- Reliable internet access
- Access to Microsoft Excel through UNT [Microsoft Office 365](#)
- See AI Policy under Course Policies.

Check [Canvas Technical Requirements](#) to ensure your device is compatible.

Course Evaluation & Grading

Evaluation

- Homework (MLM and other assignments) – 30%
- Midterm Exams (average of all) – 50%
- Final Exam – 20%

Grades will be posted in Canvas. The Totals column is only an estimate until all assignments are entered, and the course grade is calculated per the evaluation criteria.

Grading Scale

Letter Grade	Percentage Range	Description
A	90–100%	Outstanding, excellent work
B	80–89%	Good, impressive work
C	70–79%	Solid, college-level performance
D	60–69%	Below average, needs improvement
F	Below 60%	Unsatisfactory, does not meet minimum criteria

Grading Philosophy

Course grade reflects your individual performance on graded assignments and assessments. I do not grade on a curve, so your results are based on your progress rather than on how you compare to others. I encourage collaboration with classmates to deepen your learning and make the experience more enjoyable.

Please Note: This course does not offer credit recovery, late make-ups, or extensions. To succeed, stay engaged, submit assignments on time, and prepare well for exams. I'm here to support your efforts, use office hours for guidance and extra help.

Resources for Success

Success comes from your effort, strengthened by connection and resources. Use the following resources:

- Instructor Support: Canvas Inbox, responses within one business day
- Learning Groups: [Navigate Study Buddy](#) to connect with classmates and study together.
- [UNT Math Lab](#): Free math tutoring
- [The Learning Center](#): Academic coaching, workshops, and tutoring

Course Components

Homework – Learn by Practice!

Homework gives you the practice needed to learn and retain new content. Most modules include multiple assignments per week, starting the first week of class. Most assignments are on Canvas. Keep a dedicated notebook to write out your math work; this supports understanding and exam preparation.

- **Attempts:** Most MLM homework exercises allow 3 attempts; 1 attempt for questions with only 2 or 3 answer choices.
- **Due Dates:** Assignments are due *by* 11:59 PM the class period following the content lesson.
- **Late Work Policy:** Not accepted beyond the built-in grace period; three lowest scores dropped
- **MLM HW Grace Period:** Submit for up to 70% credit until 8:00 am on the Monday after due date (password: Late)

In addition to MLM, Homework may include other graded assignments: in-class and on Canvas.

Exams

You have four (4) exams, three (3) midterm exams and a final exam. The midterm exams are **tentatively** scheduled as follows. Any changes to an exam date or exam content will be announced in class.

Exam 1 – Tuesday, Sept 23 (Module 1 & Module 2)

Exam 2 – Tuesday, Oct 21 (Module 3 & Module 4)

Exam 3 – Thursday, Nov 20 (Module 5 & Module 6)

Final Exam – See [Final Exam Schedule](#) for date and time, comprehensive.

Any changes to exam dates or content will be announced in class.

Extra Credit Opportunities

Earn extra credit in two ways: Study Plan quizzes before each midterm exam and high scores on Final Exam review homework. These reward consistent effort and preparation.

Study Plan Quizzes – Midterm Exam Bonus

Each exam covers two modules; each module includes a timed Study Plan quiz in MyLabs Math (MLM). Quizzes are optional but offer an excellent way to review key concepts and earn bonus exam points.

- Closes at 11:59 PM the day before the exam.
- Up to 5 attempts per quiz; highest score counts
- Bonuses from both quizzes are combined and added to your exam score.

Score Achieved	Bonus Points toward Exam
90% or higher	+5 points
80% or higher	+4 points
70% or higher	+ 3 points
Below 70%	No bonus

Final Exam Review Homework – Final Exam Bonus

Complete the three required, graded MLM review homework assignments to prepare for the final exam. Bonus points for the final exam are earned based on your performance on these assignments.

Reviews Completed with $\geq 90\%$	Bonus Points on Final Exam
1	+3 points
2	+6 points
3	+ 10 points

Exam Grade Replacement Opportunity

Earning all 10 bonus points (90%+ on all three review assignments) may allow you to replace one low module exam with your higher final exam score. (Note: zeros assigned for cheating are excluded.)

~This course does not accept late work regardless of the reason.~

Changes to Syllabus

I will announce any changes to the syllabus in class.

Course Schedule

Schedule is subject to change, updates announced in class. Assignments due 11:59 PM on the class day following the lesson. MLM grace period: submit most MLM assignments for up to 70% credit by 8 am Monday after due date (password: Late).

Week 1

Date	Scheduled Class Topics	Other Assignments Due
8/18/2025		
8/19/2025	Course Intro & MyLabs Orientation & Problem-Solving	Course Overview Quiz & Navigating MyLabs Quiz (recommended due date)
8/20/2025		MLM Orientation
8/21/2025	1.1 Voting Methods	Course Overview Quiz & Navigating MyLabs Quiz (absolute due date)
8/22/2025		Syllabus Quiz

Week 2

Date	Scheduled Class Topics	Other Assignments Due
8/25/2025		
8/26/2025	1.2 Flaws of Voting Methods	
8/27/2025		
8/28/2025	1.3 Apportionment Methods Part 1 1.3 Apportionment Methods Part 2 (Canvas)	
8/29/2025		

Week 3

Date	Scheduled Class Topics	Other Assignments Due
9/1/2025	Labor Day – University Closed	
9/2/2025	1.4 Flaws of Apportionment Methods 2.1 Percents, Sales Tax, and Discounts HW	Module 1 Study Plan
9/3/2025		
9/4/2025	2.2. Simple Interest & 2.3 Compound Interest	
9/5/2025		



Week 4

Date	Scheduled Class Topics	Other Assignments Due
9/8/2025		
9/9/2025	2.4 Methods of Saving: Investments	
9/10/2025		
9/11/2025	2.5 Basics of Loans, Parts 1, and 2	
9/12/2025		



Week 5

Date	Scheduled Class Topics	Other Assignments Due
9/15/2025		
9/16/2025	2.6 Income Tax	
9/17/2025		
9/18/2025	2.7 Federal Student Loans (Canvas)	
9/19/2025		



Week 6

Date	Scheduled Class Topics	Other Assignments Due
9/22/2025		Module 2 Study Plan
9/23/2025	EXAM 1 (Mod 1 & Mod 2)	
9/24/2025		
9/25/2025	3.1 Basic Set Concepts & 3.2 Subsets	
9/26/2025		



Week 7

Date	Scheduled Class Topics	Other Assignments Due
9/29/2025		
9/30/2025	3.3 Set Operations & Venn Diagrams	
10/1/2025		
10/2/2025	3.4 Set Operations & Venn Diagrams w 3 Sets & 3.5 Surveys	
10/3/2025		



Week 8

Date	Scheduled Class Topics	Other Assignments Due
10/6/2025		Module 3 Study Plan
10/7/2025	4.1 Gathering, Organizing, and Visualizing Data 4.2 Measures of Central Tendency	
10/8/2025		
10/9/2025	4.3 Measures of Dispersion	
10/10/2025		



Week 9

Date	Scheduled Class Topics	Other Assignments Due
10/13/2025		
10/14/2025	4.4 The Normal Distribution 4.5 Applications Involving the Normal Distribution	
10/15/2025		
10/16/2025	4.6 Scatter Plots, Correlation, and Regression Lines (Due 10/20 11:59 PM, No Late Option)	
10/17/2025		

Week 10

Date	Scheduled Class Topics	Other Assignments Due
10/20/2025		Module 4 Study Plan
10/21/2025	EXAM 2 (Mod 4 & Mod 5)	
10/22/2025		
10/23/2025	5.1 Counting Methods 1: FTC and Permutations	
10/24/2025		



Week 11

Date	Scheduled Class Topics	Other Assignments Due
10/27/2025		
10/28/2025	5.2 Counting Methods 2: Combinations 5.3 Fundamentals of Probability	
10/29/2025		
10/30/2025	5.4 Probability Involving Counting Methods	
10/31/2025		



Week 12

Date	Scheduled Class Topics	Other Assignments Due
11/3/2025		
11/4/2025	5.5 The Additional Rule, the Complement Rule, and Odds	
11/5/2025		
11/6/2025	5.6 Conditional Probability and the Multiplication Rule	
11/7/2025		



Week 13

Date	Scheduled Class Topics	Other Assignments Due
11/10/2025		
11/11/2025	5.7 Expectation 6.1 Graphs Paths, and Circuits	
11/12/2025		Module 5 Study Plan
11/13/2025	6.2 Euler Paths and Euler Circuits 6.3 Hamilton Paths and Hamilton Circuits Both: (Late accepted to 8am 11/19)	
11/14/2025		



Week 14

Date	Scheduled Class Topics	Other Assignments Due
11/17/2025		
11/18/2025	6.4 Trees – Due 11/19 11:59 PM	
11/19/2025		Module 6 Study Plan
11/20/2025	EXAM 3 (Mod 5 & Mod 6)	
11/21/2025		

Thanksgiving Break November 24 - 30



Week 15

Date	Scheduled Class Topics	Other Assignments
12/1/2025		
12/2/2025	Final Exam Review 1 (MLM HW) Final Exam Review 2 (MLM HW)	
12/3/2025		
12/4/2025	Final Exam Review 3 (MLM HW) Pre-Finals Day	
12/5/2025	Reading Day – No Classes	



Final Exam Week

Date	Scheduled Class Topics	Other Assignments
12/11/2025 @ 8 am	Final Exam , see Final Exam Schedule	

Course Policies

Academic Integrity

Academic honesty is essential to your success and to the integrity of our university. Cheating, plagiarism, or any form of academic dishonesty cannot be tolerated. A student found cheating will receive a zero on that assignment, and for exam-related violations, a final course grade of F may be assigned. All violations will be reported to the [Office of Academic Integrity](#) in accordance with UNT Policy 06.003.

Every student in this course is capable of success through honest effort, responsibility, and proper use of resources. I'm here to support your efforts, so use available resources and ask questions when needed.

AI Use Policy

Generative AI tools (e.g., ChatGPT, Microsoft Copilot) may be used to check grammar, spelling, and help format or revise your own written work, but their use must be disclosed in your submission. Using AI to produce entire assignments or during exams is prohibited. Violations will be treated as academic integrity issues under university policy.

Attendance

Regular attendance and participation are essential to your learning and success. Attend every class unless you have a university-excused absence (e.g., military service, religious holy day, official university event) as outlined in [Student Attendance and Authorized Absences Policy](#). Notify me promptly if an emergency prevents your attendance.

Arrive on time and stay for the full class. Punctual attendance and taking notes help you stay on track and benefit the whole class. s vital. Lectures are not repeated outside of class, but I am available during office hours to answer questions.

Examination Policy

Exams are given in class on the scheduled date. Late exams, make-ups, re-takes, or extensions are not available. If you miss an exam, you will receive a zero for that exam unless you have a university-excused absence under [Policy 06.039](#) and provide documentation within two business days. In that case, your final exam grade may replace the missed exam score.

Early Exam Request

If you have a conflict with a scheduled exam date, you can request to take your exam early. Please send your request via **Canvas Inbox** at least **one week** prior to the desired early exam date.

Exam Etiquette

To ensure the best test-taking environment for all students, the following policies apply:

- Students arriving late will not be allowed to take the exam and will receive a zero.
- Store all papers, textbook, notes, and other materials in a closed backpack or bag.
- Do not wear caps or hoodies.
- Turn off and remove all non-medically necessary electronic devices. Handling any unapproved electronic device during an exam will be considered cheating.
- Remain courteous and quiet throughout the exam.
- Present your UNT photo ID upon request.
- Bring your own pencils, erasers, and approved calculator. Sharing is not permitted.
- No extra paper is allowed; exams provide sufficient space for work.
- Legibly print your name on all exam materials; no name = no credit.
- Submit exams by 10:45 am; late submissions may receive a zero.

Late Work Policy

UNT is a community of achievers and success depends on staying on schedule and using resources effectively. This course maintains high standards and also provides built-in flexibility.

- **Assignments:** Must be submitted by the posted due date.
- **MLM Homework Grace Period:** Most MLM homework assignments can be submitted for up to 70% credit by 8 am Monday following the due date.
- **Exams:** Exams must be taken as scheduled. Late exams, make-up, or retakes are not available. If an exam is missed, a grade of zero is recorded. (See Examination Policy.)
- **Homework Drops:** Your three lowest homework scores will be dropped at the end of the term to accommodate emergencies.
- **No Late Work:** Work is not accepted beyond the limited grace period built into MLM. Stay on track by submitting work on time and reach out for help as soon as you run into challenges.

Student Support Services & Assistance

Academic Support & Student Services

UNT strives to offer you a high-quality education and a supportive environment, so you learn and grow. As a faculty member, I am committed to helping you be successful as a student. To learn more about campus resources and information on how you can be successful at UNT, go to [Succeed at UNT](https://unt.edu/success) (unt.edu/success) and explore the many links at [Wellness at UNT](https://unt.edu/wellness) (unt.edu/wellness). To get all your enrollment and student financial-related questions answered, go to [Integrated Student Services](https://scrappysays.unt.edu) (scrappysays.unt.edu).

Technical Assistance for 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.

Visit the UIT Help Desk website for their current support hours. Website links, email, phone number, and office location provided as follows:

AIT Help Desk: [AIT Student Help Desk](http://aits.unt.edu/support/) (<http://aits.unt.edu/support/>)

Email: helpdesk@unt.edu

Phone: 940-565-2324

In Person: Sage Hall, Room 330

Canvas Technical Requirements: [Canvas Technical Requirements](https://digitalstrategy.unt.edu/clear)

(<https://digitalstrategy.unt.edu/clear>)

Additional Canvas Support: [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328)

(<https://community.canvaslms.com/docs/DOC-10554-4212710328>)

[Pearson MyLabs Student Technical Support](#)

MyLabs offers student technical support.

Website: [Pearson Student Technical Support](#)

Welcome to UNT!

As members of the UNT community, we have all made a commitment to being 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 Policies

[Academic Integrity Standards and Consequences. 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.

Every student in my class can improve by attending class, consistently doing their own work, and accessing appropriate resources. [Academic Integrity Policy](#) violations will not. Read and follow this important set of guidelines for your academic success.

[ADA Accommodation Statement](#)

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Access (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 [Office of Disability Access](https://disability.unt.edu/) website. (<https://disability.unt.edu/>).

Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: 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>).

Emergency Notification and Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency. In the event of a university closure, please refer to the UNT Learning Management System, Canvas, for contingency plans for covering course materials.

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) 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.

Important Notice for F-1 Students taking Distance Education Courses

Federal regulations state that students may apply only 3 fully-online semester credit hours (SCH) to the hours required for full-time status for [F-1 Visa \(PDF\)](#) holders. Full-time status for F-1 Visa students is 12 hours for undergraduates and 9 hours for graduate students.

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 [Student Identity Verification Policy](https://policy.unt.edu/policy/07-002), (<https://policy.unt.edu/policy/07-002>).

Summary of Key Dates – 2025 Fall

See, [Academic Calendars by Semester](#), for the complete list.

August 18

Classes begin.

August 22

Last Day to Add a Class or Swap Sections. A swap is switching sections of the same course in the same session.

August 29

Last Day to Drop a Class Section Without W. Courses dropped before this date will not appear on official transcript. Dropping courses may impact financial aid and degree completion. See advisors.

August 30

Drop with a grade of W Begins. Courses appear on the transcript with a grade of W and tuition, and fees remain. Dropping courses may impact financial aid and degree completion. See advisors.

September 26

Last Day to Change to Pass/No Pass (undergrads)

October 10

Midpoint of the Semester

November 7

Last Day to Drop a Course or All Courses with a Grade of W.

November 8

First Day to Request a Grade of Incomplete. Beginning this date, a student may request a grade of “I”, incomplete, a non-punitive grade given only if a student (1) *is passing*, (2) has justifiable reason why the work cannot be completed on schedule; and (3) arranges with the instructor to complete the work in no more than one academic year.

December 3 – 4

Prefinal Days

December 4

Last Regular Class Meeting

December 5

Reading Day – No Classes

December 6 – 12

Final Examinations

December 12

Last Day of Session