

University of North Texas at Dallas

Spring 2025

SYLLABUS

MATH 1350 Mathematics for Teachers I 3 hrs.

Department of	Mathematics
Instructor Name	Dr. Johnson
Office Location	DAL 1 room 201 R
Office Phone	972-338-1320
Email Address	Gwendolyn.johnson@untDallas.edu
Office Hours	Mondays, Tuesdays, Wednesdays, and Thursdays 11:30 to 12:45 and 2:30 to 3:15
Virtual Office Hours	By appointment
Course Format/Structure	Face to Face
Classroom Location	DAL 1 room 244
Class Meeting Days & Times	Tuesdays and Thursdays 1:00 to 2:20
Course Catalog Description	This course is intended to build or reinforce a foundation in fundamental mathematics concepts and skills. It includes the conceptual development of the following: sets, functions, numeration systems, number theory, and properties of the various number systems with an emphasis on problem solving and critical thinking.
Prerequisites	MATH 1314 or 1414 College Algebra
Corequisites	none
Required Reading	<i>Mathematical Practices: Mathematics for Teachers</i> by Larson and Silbey; Cengage Publishing
Recommended References	Website of the National Council of Teachers of Mathematics
Access to Learning Resources	UNT Dallas Library: Phone: (972) 338-1616; Website URL: http://www.untDallas.edu/library UNT Dallas Bookstore: Phone: (972) 780-3652; Website URL: http://www.untDallas.edu/bookstore Email: untDallas@bkstr.com

<p>Canvas Resources</p> <p>Supported Browsers:</p> <ul style="list-style-type: none"> • Chrome <p>Supported Devices:</p> <ul style="list-style-type: none"> • iPhone • Android • Chromebook <p><i>Note: Tablet users can use the Canvas app</i></p> <p>Screen Readers:</p> <ul style="list-style-type: none"> • VoiceOver (Safari) • JAWS (Internet Explorer) • NVDA (Firefox) <p><i>Note: There is no screen reader support for Canvas in Chrome</i></p>	<p>Getting Help with Canvas:</p> <p>Canvas 24/7 Phone Support for Students: 1-833-668-8634</p> <p>Canvas Help Resources:</p> <p>Canvas Student Guide - https://community.canvaslms.com/docs/DOC-10701</p> <p>For additional assistance, contact UNT Dallas Distance Learning: DAL1, Room 157 Email: distancelearning@untdallas.edu</p> <p>If you are working with Canvas 24/7 Support to resolve a technical issue, please keep me updated on the troubleshooting progress.</p> <p>If you have a course-related issue (e.g., course content, assignment trouble, quiz difficulties), please contact me during office hours or by email.</p>
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Course Overview

Course Goals/Overview:

The goal of this course is to equip students with dispositions and strategies for teaching mathematics in early childhood through Grade 8.

Learning Objectives/Outcomes:

At the end of this course, the student will

1. Explain and model the arithmetic operations for whole numbers and integers.
2. Explain and model computations with fractions, decimals, ratios, and percentages.
3. Describe and demonstrate how factors, multiples, and prime numbers are used to solve problems.
4. Apply problem-solving skills to numerical applications.
5. Represent and describe relationships among sets using the appropriate mathematical terminology and notation.
6. Compare and contrast structures of numeration systems.

Course Outline and Discussion Topics

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated via Canvas.

You should read the sections in the textbook near the time they are covered in class.

Released STAAR tests can be used to practice for the Math Review portion of the tests and quizzes.

Released STAAR tests will be posted in Canvas.

Timeline	Graded Assessment	Textbook	Math Review
Monday Jan. 13	Activity #1: Describing Patterns	Section 1.1 Problem-Solving Strategies	Grade 5 Place Value and Decimals Multiply and Divide Whole Numbers
Wednesday Jan. 15	Activity #2: Drawing Diagrams	Section 1.2 More Problem-Solving Strategies	Grade 5 Multiply Decimals Grade 5 Divide Decimals
Wednesday Jan. 22	Activity #3: Logical Reasoning Chapter 1 Chapter Test	Section 1.3 Reasoning & Logic	Grade 5 Add & Subtract Fractions
Monday Jan. 27		Section 2.1 Sets	Grade 5 Multiply and Divide Unit Fractions and Whole Numbers
Wednesday Jan. 29		Section 2.2 Whole Numbers	Grade 5 Factors and Divisibility Grade 5 Prime, Composite Numbers
Monday Feb. 3	Activity #4: Placing Whole Numbers on a Number Line Chapter 2 Chapter Test	Section 2.3 Number Lines and Numeral Systems	Grade 5 Order of Operations
Wednesday Feb. 5	Quiz #1: Chapters 1 and 2 and Grade 5 Math Review		Number Talk Rubric and Videos
Monday Feb. 10	Activity #5: Using Base-Ten Blocks to Subtract Whole Numbers	Section 3.1 Add Whole Numbers Section 3.2 Subtract Numbers	Strategies for Addition Strategies for Subtraction
Wednesday Feb. 12	Activity #6: Using Models to Multiply Whole Numbers Chapter 3 Chapter Test	Section 3.3 Multiplying Whole Numbers Section 3.4 Dividing Whole Numbers	Strategies for Multiplication Strategies for Division
Monday Feb. 17	Activity #7: Performing Whole Number Operations Using Mental Math	Section 4.1 Mental Math and Estimation Section 4.2 Exponents	Grade 6 Exponents
Wednesday Feb. 19	Activity #8: Please Excuse My Dear Aunt Sally Chapter 4 Chapter Test	Section 4.3 Order of Operations	Grade 6 Order of Operations
Monday Feb. 24	Activity #9: Describing Divisibility Rules Quiz #2: Chapters 3 and 4, Integers, Rational Numbers	Section 5.1 Divisibility Tests	
Wednesday Feb. 26	Activity #10: Discovering Primes and Composites	Section 5.2 Primes and Composites	Grade 6 Prime Factorization
Monday March 3	Activity #11: Using Diagrams to Find GCF and LCM	Section 5.3 Greatest Common Factor and LCM	Grade 6 Multiplying and Dividing Decimals

	Chapter 5 Chapter Test		
Wednesday March 5	Midterm Exam: Chapters 1-5 and Grades 5 & 6 math material		
Monday March 17	Activity #12: Modeling Fractions with Pattern Blocks	Section 6.1 Fractions	
Wednesday March 19	Activity #13: Using Models to Add & Subtract Fractions	Section 6.2 Adding and Subtracting Fractions	
Monday March 24	Activity #14: Using Area Models to Multiply Fractions	Section 6.3 Multiplying and Dividing Fractions	Grade 6 Multiplying and Dividing Fractions
Wednesday March 26	Activity #15: Understanding Ratio and Proportion	Section 6.4 Ratios and Proportions	Grades 6 Representing Ratios and Rates
Monday March 31	Chapter 6 Chapter Test	Section 6.4 Ratios and Proportions	Grade 6 Applying Ratios and Rates
Wednesday April 2	Quiz #3: Chapter 6 and Grade 6 math material	Section 7.1 Decimals	
Monday April 7	Activity #16: Multiplying and Dividing Decimals by Whole Numbers	Section 7.2 Adding and Subtracting Decimals Section 7.3 Multiplying and Dividing Decimals	
Wednesday April 9	Activity #17: Relating Fractions and Percents	Section 7.4 Percents	Grade 6 Percents
Monday April 14	Chapter 7 Chapter Test	Section 7.4 Percents	Grade 7 Proportions and Percent
Wednesday April 16	Quiz #4: Chapter 7 and Grades 6-7 math material	Section 8.1 Integers	Grade 6 Integers
Monday April 21	Activity #18: Multiplying and Dividing Integers Using Models Chapter 8 Chapter Test	Sections 8.2 and 8.3 Computation with Integers	Grade 6 Adding and Subtracting Integers Multiplying and Dividing Integers
Wednesday April 23	Activity #19: Identifying and Comparing Rational Numbers Activity #20: Writing and Solving Equations	Sections 9.1 and 9.2 Rational Numbers	Grade 6 Rational Numbers Grade 7 Rational Numbers
Monday April 28	Chapter 9 Chapter Test	Section 9.3 Real Numbers	Grade 8 Real Numbers
Wednesday April 30	Review for the Final Exam		
Monday May 5	Final Exam		

Course Evaluation Methods

In this course, the following instruments will be used to determine student grades.

Instrument	Points	Total
Attendance and Participation	30 classes at 2 points each	60
In-Class Activities	20 activities at 1 point each	20
Chapter Tests and Review for the Final Exam	10 sets at 5 points each	50
Number Talks	4 Number Talks at 10 points each	40
Quizzes	4 quizzes at 40 points each	160
Midterm Exam		70
Final Exam		100
Total		500

A = 90% or better B = 80 – 89% C = 70 – 79% D = 60 – 69% F = below 60%

Need tutoring services or just some help with a particular assignment? For tutoring that empowers students to achieve success, schedule an appointment with the Learning Commons today at <https://www.untDallas.edu/learning/schedule-appointment/>.

Course-Specific Policies

Attendance and Participation Policy:

The University attendance policy is in effect for this course. Please refer to Policy 7.005 Student Attendance at <https://untsystem.policytech.com/dotNet/documents/?docid=1347&public=true>.

During each class period, you will be given a score of 0 to 2 for participation. Part of your participation score will be determined by your ability and willingness to participate in small groups and present at the board.

Examples of behavior that results in less than full credit for participation:

- Arriving late or leaving early
- Wearing earbuds or headphones during class
- Falling asleep or appearing sleepy during class
- Talking with other students at inappropriate times
- Using a tablet or laptop in such a way that you do not appear to be engaged in course activities
- Any other behavior that distracts you, the instructor, or other students

Assignment Policy:

Chapter tests should be completed in class and are due on the date we cover them in class. If you miss class, complete them on your own and turn them in the next class day. Review exercises not turned in the next class day may receive a grade of zero.

Quizzes should be completed in class and are due on the date we cover them in class. If you miss class, communicate with the instructor and then make an appointment with UNTD Testing Services. **You may make up only ONE quiz during the semester. Any missed quiz past the one you can make up will receive a grade of zero.**

Exam Policy:

Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Policy 7.005 Student Attendance at <https://www.untDallas.edu/hr/upol>).

Calculators will NOT be allowed on the exams. If you are more than 20 minutes late to the exam, you will not be able to take the exam at that time. You will need to schedule a make-up exam with UNT Dallas Testing Services. The midterm exam must be completed by the end of midterm exam week. The final exam must be completed by the end of final exam week.

Other Course Specific Policies:

You are expected to check Canvas at least one per week to monitor your grades and to read announcements.

Please turn your cell phone's ringer off during class.

You can use a tablet or laptop during class if it is clear that you are paying attention and engaged in course-related activities. Using a tablet or laptop for unrelated activities will result in a lower Participation grade.

University Policies and Procedures

Students with Disabilities (ADA Compliance):

The University of North Texas at Dallas makes reasonable academic accommodations for students with disabilities. Students seeking accommodation must first register with the Disabilities Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO 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 accommodation at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delays in implementation. Note that a student must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at

<http://www.untDallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDDisability@untDallas.edu on the first floor of the Student Center.

Canvas Instructure Accessibility Statement:

University of North Texas at Dallas is committed to ensuring that online and hybrid courses are usable by all students and faculty including those with disabilities. If you encounter any difficulties with technologies, please contact our ITSS Department. To better assist them, you would want to have the operating system, web browser and information on any assistive technology being used. The Canvas Instructure Accessibility Statement is provided at <https://www.canvaslms.com/accessibility>.

NOTE: Additional instructional technology tools, such as Turnitin, Respondus, Panopto, and publisher cartridge content (i.e. MyLab, Pearson, etc.) may NOT be fully ADA compliant. Please contact our Disability Office should you require additional assistance utilizing any of these tools.

Academic Integrity:

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the UNT Dallas Academic Integrity Policy in the appropriate Catalog at <http://dallascatalog.unt.edu>.

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

Web-based Plagiarism Detection: Please be aware in some courses, students may be required to submit written assignments to Turnitin, a web-based plagiarism detection service, or another method. If submitting to Turnitin, please remove your title page and other personal information.

Classroom etiquette:

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student's Rights, Responsibilities, and Conduct will be referred to the Dean of Students as the instructor deems appropriate (UNT Policy 7.001 found at <https://untsystem.policytech.com/dotNet/documents/?docid=1278&public=true>).

Classroom Disruption:

Students are expected to always engage with the instructor and other students in this class in a respectful and civil manner to promote a classroom environment that is conducive to teaching and learning. Students who engage in disruptive behavior will be directed to leave the classroom. A student who is directed to leave class due to disruptive behavior is not permitted to return to class until the student meets with a representative from the Dean of Students Office. It is the student's responsibility to meet with the Dean of Students before class meets again and to provide the instructor confirmation of the meeting. A student who is directed to leave class will be assigned an unexcused absence for that

class period and any other classes the student misses because of not meeting with the Dean of Students. The student is responsible for material missed during all absences, and the instructor is not responsible for providing missed material. In addition, the student will be assigned a failing grade for assignments, quizzes or examinations missed and will not be allowed to make up the work.

The Code of Student's Rights, Responsibilities, and Conduct (UNT Policy 7.001 found at <https://untsystem.policytech.com/dotNet/documents/?docid=1278&public=true>) describes disruption as the obstructing or interfering with university functions or activity, including any behavior that interferes with students, faculty, or staff access to an appropriate educational environment. Examples of disruptive behavior that may result in a student being directed to leave the classroom include but are not limited to: failure to comply with reasonable directive of University officials, action or combination of actions that unreasonably interfere with, hinder, obstruct, or prevents the right of others to freely participate, threatening, assaulting, or causing harm to oneself or to another, uttering any words or performing any acts that cause physical injury, or threaten any individual, or interfere with any individual's rightful actions, and harassment. You are encouraged to read the Code of Student's Rights, Responsibilities, and Conduct for more information related to behaviors that could be considered disruptive.

Course Evaluations:

Student evaluations of teaching effectiveness are a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester via your campus email, providing you a chance to comment on how this class is taught. I (as the instructor) will not have access to the results of the evaluations until after final grades have been posted. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

Sexual Harassment, Sexual Misconduct, Intimate Partner Violence and Stalking

UNT Dallas is committed to creating a safe learning environment for all members of our community, free from gender and sex-based discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking, in accordance with Title IX, Texas laws and University Policies. Please note that all employees are mandated reporters and must report all instances of sexual misconduct, dating violence, sexual assault, domestic violence and stalking to the Title IX Coordinator. If you or someone you know has experienced any form of sex or gender-based discrimination or violence and wish to speak to the Title IX Coordinator, you can email them at titleix@untDallas.edu or file a report [here](#).

Pregnancy, Pregnancy Related Conditions and Parenting Modifications Under Title IX

UNT Dallas is committed to compliance with Title IX, and to supporting the academic success of pregnant and parenting students and students with pregnancy related conditions. If you are a pregnant, have pregnancy related conditions or a parenting student (child under one-year needs documented medical care) who wishes to request reasonable related modifications from the University under Title IX, please email the Title IX Coordinator at titleix@untDallas.edu. The Title IX Coordinator will work with your professors and academic unit to provide reasonable modifications needed to be supportive of your education while pregnant or as a parent under Title IX.

Bad Weather Policy:

Campus facilities will close, and operations will be suspended when adverse weather and/or safety hazards exist on the UNTD campus or if travel to the campus is deemed dangerous as the result of ice, sleet or snow. In the event of a campus closure, the Marketing and Communication Department will report closure information to all appropriate major media by 7 a.m. That department will also update the UNTD website, Facebook and Twitter with closing information as soon as it is possible. For more information, please refer to <http://www.untDallas.edu/police/resources/notifications>.

Inclement Weather and Online Classes:

Online classes may or may not be affected by campus closures due to inclement weather. Unless otherwise notified by your instructor via e-mail, online messaging, or online announcement, students should assume that assignments are due as scheduled.

Technology Assistance: To successfully access the materials in Canvas, UNT Dallas advises that your computer be equipped with the minimum system requirements listed on the first page of the syllabus.

If you have trouble accessing or using components of the course, try using Google Chrome browser. If you still experience technical difficulties, first, notify your instructor.

If the problem is still not resolved, call Distance Learning at the phone number listed on the first page of the syllabus. Also, no matter what browser you use, always enable pop-ups.

For more information see:

- UNT Dallas Canvas Technical Requirements: <https://community.canvaslms.com/docs/DOC-10721>
- Canvas Instructure Support & Unsupported Operating Systems: <https://community.canvaslms.com/docs/DOC-10720>