2026 10Wk MATH 1650.430: Precalculus
May 18 – July 24

Welcome

Welcome to Precalculus. This course is designed to strengthen the algebraic, graphical, and problem-solving skills needed for success in Calculus and other higher-level mathematics courses. Success in Precalculus comes from consistent practice, active engagement with the material, and asking for help early when concepts become challenging. My goal is to support you in building the mathematical foundation and confidence needed for calculus readiness and future success in mathematics.

Instructor Information

Name: Rumana Akther

Pronouns: she/her/hers

Office Location: GAB 468

Tutoring/Office Hours: By appointment (via Zoom). Please email me to schedule a meeting time.

Email: Rumana.akther@unt.edu.

Virtual Office Hours (by appointment)

I'm available to support your progress in this course. Use the scheduling link in Canvas to book a virtual meeting for questions, course help, or review.

How to Contact Me

Please reach out whenever you have questions or concerns.

- **Canvas Inbox (Preferred)**: Fastest response.
- **UNT Email**: Include "MATH 1650.430" in the subject line and use your official UNT email account.

I usually respond within **one business day**. If you don't hear back, please send a follow-up message.

Please remember to keep all communication respectful and professional, following UNT's General Online Communication Tips.

Course Overview

This course strengthens your algebraic and computational skills while deepening your understanding of key algebraic and trigonometric concepts. Throughout the course, you will review, refresh, and build proficiency in solving and analyzing trigonometric functions, sequences and series, exponential and logarithmic functions, and polynomial and rational functions.

Because this course is designed to prepare students for Calculus and future STEM coursework, most work is completed with limited or no calculator use. The emphasis is on developing strong algebraic

reasoning, symbolic manipulation, and analytical problem-solving skills rather than reliance on technology.

More than simply preparation for Calculus, this course reinforces prior knowledge while introducing more advanced and applicable topics that provide a strong foundation for future STEM studies. The course is organized into four modules designed to guide your learning progression and support your development of calculus readiness skills.

Catalog Course Description

5 hours. Preparatory course for calculus: trigonometric functions, their graphs and applications; sequences and series; exponential and logarithmic functions and their graphs; graphs of polynomial and rational functions, general discussion of functions and their properties.

Course Prerequisites

The official prerequisite for Precalculus is a grade of C or higher in MATH 1100. Because this course builds on concepts from College Algebra and moves at a steady pace toward calculus readiness, students are expected to enter the course with a solid foundation in algebraic reasoning and problem-solving skills.

Students should also have basic online learning and technology skills, including the ability to:

- Navigate Canvas
- Complete and submit assignments online
- Scan and upload handwritten work
- Download and install required course software, including Respondus LockDown Browser
- Access, download, and print required course materials

Support resources are available through the college if you need assistance with course technology or online learning tools: UNT Helpdesk

Course Structure

This is an asynchronous online course, which means there are no required live class meetings. All course materials, assignments, grades, and announcements are available in Canvas. See UNT Online for tips for succeeding in a remote learning environment.

Each module includes guided notes and lesson videos. Complete the notes while watching each lesson video to prepare for homework and exams.

Course Objectives

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

- Apply properties of functions to graphing and modeling.
- Solve equations involving algebraic and transcendental functions.
- Use graphing techniques to graph algebraic and transcendental functions, without using technology.

- Identify and determine exact and approximate trigonometric function values in both radians and degrees.
- Prove trigonometric identities.
- Solve right and oblique triangles.
- Define polar coordinates and graph polar equations.
- Apply the terminology of sequences and series to determine terms and sums.

Required Course Materials

Cengage WebAssign (Required)

Purchase of Cengage WebAssign access is required for the full course term. WebAssign is used for homework and required course materials.

Student using trial access must purchase full access before the 7-day trial expires.

WebAssign includes:

- Homework assignments for each content module
- The e-text of *Precalculus: Mathematics for Calculus*, 8th Edition (2025) by James Stewart, Lothar Redlin, and Saleem Watson
- Additional learning resources

Registration & Purchase Instructions

- Register only **once** through the Cengage link on Canvas.
- Use your official UNT email address and official UNT name when registering.
- Only work completed in your first valid WebAssign account may receive credit.
- Work completed in additional accounts or accounts created with non-UNT email address may not receive credit.
- Register immediately. See the **Start Here** module in Canvas for full instructions.
- WebAssign may offer a one-time 7-day trial access to students who have not previously used the trial.
- Students using trial access must purchase full access before the 7-day trial access expires to avoid loss of access or credit.

Note-taking Materials

- Guided notes are available in Canvas.
- Keep paper and pencil available for lesson notes, practice, and exam preparation.

Technology Requirements

To complete this course, students need:

- A computer or tablet compatible with Canvas
- Reliable internet access
- Webcam and microphone for proctored test
- Respondus Lockdown Browser (linked in Canvas)

- A printer is strongly recommended

Note: Smartphones are **not** sufficient for coursework or exams.

Check Canvas Technical Requirements to confirm device compatibility.

Calculator

A calculator is permitted only on selected exercises of this entire course – as a primary goal of this course is learning computational skills. For the limited exercises in which a calculator is permitted, many are sufficient for those specific exercises. Acceptable options include the: TI-30XIIS, TI-36, TI-83, or TI-84 (or similar Casio, other manufacturer's calculators). The online Desmos (www.desmos.com) will be available on Respondus monitored exams.

Utilities with alphanumeric/CAS capabilities or can connect to the internet are NOT acceptable, neither are business analyst calculators. Not acceptable examples include the: TI-Nspire, TI 89, TI 92, TI BAII Plus, and smartphones and smart watches.

Course Evaluation & Grading

Evaluation

Your grade is based on the following components:

- Homework (WebAssign) – 10%
- Quizzes – 10%
- Written Assignments (Worksheets) – 10%
- Engagement Tasks (Discussions, Orientation assignments, etc.) – 2%
- Midterm Exams (average of all) – 50%
- Final Exam – 20%

Grades are posted in the Canvas throughout the course.

Grading Scale

- A: 90 – 100%
- B: 80 – 89%
- C: 70 – 79%
- D: 60 – 69%
- F: Below 60%

Grading Policy

Grades are based on individual performance on course assignments and exams. This course is not graded on a curve.

Students are encouraged to collaborate appropriately while completing their own graded work.

Course Components

Homework: Learn through Practice

Homework helps you practice new skills, strengthen algebraic reasoning, and prepare for quizzes and exams. Most weeks include several homework assignments beginning during the first week of class. Success in Precalculus usually comes from steady practice and consistent effort over time.

The course is organized into four modules, each containing multiple sections. Homework assignments, including WebAssign activities, are accessed through Canvas.

Maintain a dedicated notebook for your math work. Writing out steps, formulas, and reasoning helps reinforce understanding and creates a valuable study resource for exam preparation.

- Most WebAssign questions allow up to 5 attempts. True/false and multiple-choice questions typically allow only 1 attempt.
- Homework assignments are due by 11:59 PM on the posted due date.
- Work ahead when possible, especially during busy weeks.
- A 5% bonus is awarded for homework submitted more than 48 hours before the deadline.
- Late homework is not accepted; however, your three lowest homework scores will be dropped to help account for occasional difficulties.
- Homework may also include additional graded activities posted in Canvas.

Quizzes

Quizzes help you check your understanding as you progress through the course. These regular, lower-stakes assessments are designed to support your learning and help you prepare for module exams.

- For best quiz results, complete the related homework first.
- Quizzes are delivered on Canvas through Respondus Lockdown and Monitor.
- New quizzes open on Thursday each week.
- Quizzes are due by 11:59 PM on the following Monday.
- Quizzes are timed and must be completed in one sitting.
- You get two (2) attempts per quiz.
- One low quiz score will be dropped at the end of the term.

Written Assignment Worksheets

Written assignments provide practice in clearly and accurately presenting mathematical work. These assignments emphasize not only correct computation and reasoning, but also mathematical communication—showing and explaining your process in a way that others can follow. Developing these skills is essential for success in this course and future mathematics courses.

- Begin each written assignment as you work through the related WebAssign homework.
- Use your initial work to identify and correct errors, then prepare a neat final version for submission.

- Credit is based on both correct solutions and clearly communicated mathematical work.
- Assignments must be completed by hand and submitted as a clear PDF upload in Canvas.
- Written assignments are due by 11:59 PM on the posted Friday due date.

Engagement Tasks

Engagement tasks help you become familiar with course expectations, tools, and the learning process. These activities may include orientation quizzes, discussion posts, surveys, or other introductory assignments designed to encourage participation and build connection in our online class.

- Complete engagement tasks by the posted due dates to receive credit.
- All engagement activities are available in Canvas.
- Engagement tasks count toward your overall course grade.

Exams

This class has **four module exams** and **one comprehensive final exam.**

Exams are completed in Canvas using Respondus LockDown Browser. Dates are listed below as well as in the course schedule.

Exam 1 – Tuesday June 2, closes at 11:59 PM. Module 1 Function Fundamentals
Exam 2 – Tuesday, June 16, closes at 11:59 PM. Module 2 Algebra of Functions and Algebraic Functions
Exam 3 – Wednesday, July 1, closes at 11:59 PM. Module 3 Transcendental Functions
Exam 4 – Wednesday, July 22, closes at 11:59 PM. Module 4 Analytic Trigonometry
Final Exam – Friday, July 24**,** closes at 11:59 PM. See Final Exam Schedule. The final exam is comprehensive.

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

Changes to Syllabus

Changes made to the syllabus will be posted as an Announcement on Canvas.

Course Schedule

Course assignments are due by 11:59 PM on the posted due date. Plan ahead and avoid waiting until the last minute to complete coursework. Before beginning homework assignments, complete the learning activities for each section:

- Print or open guided notes
- Watch lesson videos while taking notes
- Review your notes afterward
- Read assigned textbook sections when listed

Completing the learning coursework before starting assignments will help you better understand the material and improve your performance on homework, quizzes, and exams.

Week 1

Date	Assignments Due
5/18/2026	• Module 1.1 (2.1 Functions) • Discussion: Getting Acquainted
	• Module 1.2 (5.1 Unit Circle) • Syllabus Quiz
	• Module 1.3 (5.2 Trig Functions of Real Numbers)
	• Module 1.4 (1.7 Modeling with Equations) • Module 1.5 (1.8 Inequalities)
	• Module 1.6 (1.10 Lines) • Module 1 Worksheet 1

Week 2

Date	Assignments Due
5/25/2026	No classes in observance of Memorial Day
	• Module 1 Quiz 1 • Module 1.7 (12.1 Sequences and Summation Notation) • Module 1.8 (12.2 Arithmetic Sequences)
	• Module 1.9 (12.3 Geometric Sequences)
	• Module 1.10 (1.12 Modeling Variations) • Module 1 Discussion – Self-Directed Learning
	• Module 1.11 (2.2 Graphs of Functions) • Module 1.12 (2.3 Getting Information from Graphs) • Module 1 Worksheet 2

Week 3

Date	Assignments Due
6/1/2026	• Module 1 Quiz 2
	Exam 1
	• Module 2.1 (2.4 Average Rate of Change) • Module 2.2 (2.6 Transformation of Functions)
	• Module 2.3 (2.7 Combining Functions) • Module 2.4 (2.8 One-to-One Functions and their Inverses)
	• Module 2.5 (3.1 Quadratic Functions and Models) • Module 2 Worksheet 1

Week 4

Date	Assignments Due
6/8/2026	• Module 2 Quiz 1 • Module 2.6 (3.2 Polynomial Functions and their Graphs)
	• Module 2.7 (3.3 Dividing Polynomials)
	• Module 2.8 (3.4 Real Zeros of Polynomials)
	• Module 2.9 (1.6 Complex Numbers) • Module 2.10 (3.5 Complex Numbers and the Fundamental Thm of Algebra • Module 2 Discussion – New Discoveries
	• Module 2.11 (3.6 Rational Functions) • Module 2 Worksheet 2

Week 5

Date	Assignments Due
6/15/2026	• Module 2 Quiz 2
	Exam 2
	• Module 3.1 (5.3 Trigonometric Graphs)
	No Classes in observance of Juneteenth
	• Module 3.2 (5.4 More Trigonometric Graphs) • Module 3 Worksheet 1

Week 6

Date	Assignments Due
6/22/2026	• Module 3 Quiz 1 • Module 3.3 (5.5 Inverse Trig Functions and Graphs)
	• Module 3.4 (4.1 Exponential Functions
	• Module 3.5 (4.2 The Natural Exponential Function)
	• Module 3.6 (4.3 Logarithmic Functions) • Module 3.7 (4.4 Laws of Logarithms) • Discussion Module 3 – Cultivating a Growth Mindset
	• Module 3.8 (4.5 Exponential and Logarithmic Equations) • Module 3 Worksheet 2

Week 7

Date	Assignments Due
6/29/2026	• Module 3 Quiz 2 • Module 3.9 (4.6 Modeling with Exponential Functions)
	•
	Exam 3
	• Module 4.1 (6.1 Angle Measure)
	No Classes in observance of Independence Day.

Week 8

Date	Assignments Due
7/6/2026	• Module 4 Quiz 1 • Module 4.2 (6.2 Trigonometry of Right Angles)
	• Module 4.3 (6.3 Trigonometric Functions of Angles)
	• Module 4.4 (6.4 Inverse Trig and Right Triangles)
	• Module 4.5 (6.5 The Law of Sines)
	• Module 4.6 (6.6 The Law of Cosines) • Module 4 Worksheet 1

Week 9

Date	Assignments Due
7/13/2026	• Module 4 Quiz 2 • Module 4.7 (7.1 Trigonometric Identities)
	• Module 4.8 (7.2 Addition and Subtraction Formulas)
	• Module 4.9 (7.3 Double Angle and Half-Angle Formulas)
	• Module 4.10 (7.4 Basic Trig Equations) • Discussion Module 4 – Demonstrating and Explaining an Involved Solution
	• Module 4.11 (7.5 More Trig Equations) • Module 4 Worksheet 2

Week 10

Date	Assignments Due
7/20/2026	• Module 4 Quiz 3 • 4.12 (8.1 Polar Coordinates)
	Exam 4
	FINAL EXAM

Math 1650 Course Policies

Academic Integrity

Academic honesty is expected in this course. Cheating, plagiarism, unauthorized use of AI, or other academic misconduct may result in penalties consistent with university policy.

Possible consequences include a zero on that assignment, an F in the course for serious violations, and referral to the Office of Academic Integrity in accordance with UNT Policy 06.003.

Success in this course requires honest effort, personal responsibility, and appropriate use of course resources.

AI Policy

AI tools may be used only when explicitly authorized in the assignment instructions.

Attendance/Participation

Because this is an online course, attendance means regular participation in course activities.

This includes:

- Watching lesson videos
- Completing guided notes
- Submitting assignments on time
- Staying current with course deadlines

Course materials provide the primary instruction for this class. Office hours and messages are best used for specific questions after reviewing the lesson materials.

Students are expected to plan ahead and work proactively when possible. For exam scheduling conflicts, request an early exam through Canvas Inbox at least two business days in advance.

See UNT's Student Attendance and Authorized Absences Policy for excused absences.

Examination Policy

All exams are completed in Canvas using Respondus LockDown Browser.

- Exams must be submitted by 11:59 PM on the scheduled date.
- Exams not completed by the deadline receive a score of zero unless covered by an approved university-excused absence.
- Documentation for approved absences must be submitted within two business days of missed exam date.
- When approved, the final exam score may replace a missed module exam grade.
- Students needing an **early exam** should contact me through Canvas at least two business days before the requested early exam date. Approval is based on course scheduling and circumstances.

Exam Protocol for Testing with Respondus

To support a fair testing environment:

- Complete the How to Take an Exam with Respondus module before your first exam.
- Test in a private space with clear desk or workspace.
- Complete the exam independently.
- Module exams are 60 minutes unless otherwise noted.
- Once an exam begins, the timer continues. Please confirm your technology is ready before starting.
- Students should check technology before starting as extra time or retakes are not provided for avoidable technical issues.
- Written work must be completed on paper when required and shown as instructed for credit.
- Coursework submissions are accepted only through the designated course platform unless otherwise directed.
- Exam grades are typically posted within one week.

Students may ask questions about grading for clarification. Final score determinations remain with the instructor.

Late Work Policy

This course moves quickly, so deadlines are important.

- Assignments are due by the posted deadline.
- Exams cannot be submitted late.
- Your three lowest WebAssign homework scores will be dropped at the end of the term.

Late work is not accepted. However, WebAssign homework submitted more than 48 hours before the due date earns a 5% early submission bonus.

Resources for Success

Many students improve through steady practice and early use of support resources. Below are key resources to help you stay on track and strengthen your understanding:

- **Instructor Support**: Message me through Canvas Inbox. I respond to most student messages in one business day.
- **Study Groups**: Use the Navigate Study Buddy tool to connect with classmates and study together. Collaborative learning strengthens understanding.
- UNT Math Lab: Free math tutoring in a welcoming environment.
- The Learning Center: Academic coaching, workshops, and tutoring to support your success across all courses.

Student Support Services & Assistance

Academic Support and 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 (unt.edu/success) and explore the many links at Wellness at UNT (unt.edu/wellness). To get all your enrollment and student financial-related questions answered, go to Integrated Student Services (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 and other UNT technology issues.

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

IT Help Desk: IT Student Help Desk (https://its.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)

Additional Canvas Support: Canvas Technical Help (https://communitycanvalms.com/docs/DOC-10554-4212710328)

Cengage WebAssign Student Support

Website: WebAssign Student 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 this course can improve through consistent effort and academic honesty. Academic Integrity Policy violations will not help you succeed. Read and follow this important set of guidelines for your academic success.

ADA Accommodation Statement

UNT makes reasonable academic accommodations for students with disabilities. Students seeking accommodations must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide the 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 accommodations should be provided as early as possible in the semester to avoid delays 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 website.

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 student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward email to Eagle Connect (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 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 the last weeks of the term 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/) 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).

Summary of Key Dates – 2026 10Wk1

See Registration Guide.

May 18: Classes begin.

May 21: Last day to Add a Class or Swap Sections.

June 3: Census – Official Enrollment Determined. Last day to drop a course section to no longer appear on the official transcript. (*Dropping courses may impact financial aid and degree completion. See advisors.*)

June 4: Beginning this this, students can drop a course with a grade of W. For information on how to drop a class, see Registration Guide, Dropping. The course appears on the transcript with a Grade of W and tuition and fees remain. (*Dropping courses may impact financial aid and degree completion. See advisors.*)

July 8: The last day to drop a course or all courses with a grade of W.

July 9: 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 the work cannot be completed on schedule; and (3) arranges with the instructor to complete the work in no more than one academic year.

June 24: Final Examination, Last Day of Session.