Spring 2025 MATH 1650.420: Precalculus
Jan 13 – May 9

Instructor Information

Name: Mr. Yekun Wang

Virtual Office Hours: By appointment. Via Email: yekunwang@my.unt.edu

Virtual Sessions/office hours offer you an opportunity to ask for clarification and to find support with understanding class material. I encourage you to connect with me. Your learning success is our goal.

Communication: Canvas Inbox preferred; my email: yekunwang@my.unt.edu. If you use email, use your UNT email account. Your communication with me and your classmates should be in line with UNT's General Online Communication Guidelines.

Communication Expectations: If you message me on the Canvas Inbox and do not receive a reply from me within one (1) *business* day, please send a follow-up. A gentle nudge is always appreciated.

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 and Readiness Expectations

A commitment to dedicating the required time, typically several hours per day during a summer term, to fully engage with the material is crucial for success. In math courses, concepts and skills build upon each other, making it challenging to catch up if you fall behind. Embracing this commitment is essential for steady progress and mastery of content.

- The official prerequisite to take Precalculus is a grade of C or higher in MATH 1100.
- Digital Literacy
    - Navigate Canvas and WebAssign
    - Message electronically in Canvas Inbox
    - Complete assignments online
    - Scan and submit online hand-written assignments
    - Download and install course software, Respondus Lock Down Browser
    - Download and print required course materials

Course Structure

This course takes place 100% online. Information on how to be successful in a remote learning environment can be found at UNT Online (https://online.unt.edu/learn). Except for optional virtual sessions, your interactions with me and your classmates will take place on Canvas.

This course begins with the first content module in Canvas open. I will open subsequent modules as we progress through the course. This course has four (4) content modules. Module, chapter, and unit are used interchangeably.

In each content module, you will find student lecture notes templates that correspond to instructional videos. The lesson videos present instruction and solutions to examples. Print the student notes and fill in the blanks as you watch the videos. This is how you "attend class."

Course Objectives

Upon completion of this course, the successful learners 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

WebAssign is online course delivery platform accessed directly through Canvas. WebAssign access includes all online homework assignments, the textbook, and additional learning resources. Use the link in Canvas to register immediately. You must register in WebAssign the first class day of the semester. See WebAssign Student Information.

WebAssign grants a no-cost trial 14-day access. You must purchase your access before the temporary access expires. If you do not make the purchase before trial period ends, you may lose credit for all work previously completed. Again, see WebAssign Student Information for purchase information.

Textbook

The textbook is Stewart, James, Lothar, Redlin, Saleem, Watson *Precalculus – Mathematic for Calculus, 8th* Edition, Cengage Learning (2024). It is available online through WebAssign platform.

Calculator

Many calculators are sufficient for the exams in this class. 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.

Technology

- Computer, tablet, or laptop that is compatible with all required apps for this course.
- A smartphone ***is not*** sufficient.
- Reliable internet access.
- Webcam and microphone for proctored tests.
- Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements).
- A printer

Course Evaluation

Evaluation components are listed below with their percentages of course grade. Descriptions of components follow.

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%

Your Course Grade

Your grades will be posted in Canvas Grades.

- A: [90, 100+), Outstanding, excellent work. The student performs well above the minimum criteria.
- B: [80, 90), Good, impressive work. The student performs above the minimum criteria.
- C: [70, 80), Solid, college-level work. The student performance meets the minimum criteria.
- D: [60, 70), Below average work. The student performs below the minimum criteria.
- F: [0, 60), Sub-par work. The student performs well below the minimum criteria.

Your course grade is determined solely by the results you achieve on the graded items. I do not grade on a *curve,* as that would be a comparison of your outcomes to others*;* nor offer extra credit or *credit recovery* options. I encourage you collaborative learning experiences. Explore Navigate's Study Buddy (https://navigate.unt.edu) tool to join study groups and enhance your understanding. Maximize your learning with our coaching staff at the Learning Center. Focus on areas where you are struggling in this course by connecting with me and utilizing the UNT Math Tutor Lab. Achieve together!

Course Components

Homework – You Learn by Practice!

The primary purpose of homework is to provide you with opportunities to learn, practice, and retain new content.

- To that end, you will typically have assignments daily, starting the first day of class. All assignments are accessed through Canvas.
- I recommend you maintain a dedicated *paper* notebook for your course work. Be sure to show all work, include steps and the theorems or rules used.
- As an incentive to develop strong time management and planning skills, a **5% bonus** will be awarded for any homework completed more than 24 hours before the deadline.
- Most WebAssign homework allows 5 attempts on each question, except for true-false and multiple-choice items.
- All course assignments are due 11:59 PM of the posted due dates. If the due dates conflict with your schedule, work ahead to avoid any last-minute rush.
- Remember, late work is not accepted. However, to accommodate for unforeseen circumstances, **three (3)** low homework grades will be dropped at the end of the term.

Quizzes

Quizzes serve as a means for you to assess your understanding of the material as you progress through the course. These regular, lower-stakes assessments are designed to help you better prepare for the module exams.

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

Written Assignment Worksheets

Written submission assignments provide you with practice on presenting math work correctly, emphasizing the importance of demonstrating appropriate reasoning and accurate computations. An essential skill for this and subsequent courses.

- Access and begin working on written assignments *along* with WebAssign homework, to write your first draft.
- Correct, revise, and ***neatly rewrite*** your first draft. Correct answers without mathematically correct supporting work receive not credit.
- No credit for digital work.
- Make PDF and submit on Canvas by 11:59 PM of due date, which is Friday.

Engagement Tasks

Engagement tasks include orientation assignments and discussion posts. The discussion assignments are designed to keep you connected with your classmates.

Exams

You have five (5) exams: Four (4) midterm exams and a required final exam. Content questions are NOT answered on exam days.

Exam 1 – Friday February 7, 8 AM – 11:59 PM. Module 1 Function Fundamentals
Exam 2 – Friday, February 28, 8 AM – 11:59 PM. Module 2 Algebra of Functions and Algebraic Functions
Exam 3 – Friday, March 28, 8 AM – 11:59 PM. Module 3 Transcendental Functions
Exam 4 – Friday, April 25, 8 AM – 11:59 PM. Module 4 Analytic Trigonometry
Final Exam – Thursday, May 8**,** 8 AM – 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

All course assignments are due 11:59 PM of the posted due date. Do your learning coursework several days before the posted due dates. Learning coursework means printing out the student notes, watching lesson videos to complete the notes, review the notes, and read supplemental textbook sections. That is, *do* your coursework before the assignment is *due*.

Week 1

Date	Assignments Due
1/20/2025	• Getting Familiar with WA Homework • Module 1.1 (2.1 Functions) • Module 1.2 (5.1 Unit Circle) • Module 1.3 (5.2 Trig Functions of Real Numbers) • Discussion: Getting Acquainted • Quiz 1
1/27/2025	• Module 1.4 (1.7 Modeling with Equations) • Module 1.5 (1.8 Inequalities) • Module 1.6 (1.10 Lines) • Module 1.7 (12.1 Sequences and Summation Notation) • Worksheet 1 • Syllabus Quiz

2/3/2025	• 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) • Worksheet 2 • Quiz 2
2/7/2025	**Exam 1**
2/10/2025	• 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) • Quiz 3 • Worksheet 3
2/17/2025	• Module 2.5 (3.1 Quadratic Functions and Models) • 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) • Worksheet 4 • Quiz 4
2/24/2025	• 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) • Worksheet 5 • Quiz 5
2/28/2025	**Exam 2**
3/3/2025	• Module 3.1 (5.3 Trigonometric Graphs) • Module 3.2 (5.4 More Trigonometric Graphs) • Worksheet 6 • Quiz 6 • Module 3.3 (5.5 Inverse Trig Functions and Graphs)
3/10/2025	• Module 3.4 (4.1 Exponential Functions • Module 3.5 (4.2 The Natural Exponential Function) • Module 3.6 (4.3 Logarithmic Functions) • Worksheet 7 • Quiz 7
3/24/2025	• Module 3.7 (4.4 Laws of Logarithms) • Discussion Module 3 – Cultivating a Growth Mindset • Module 3.8 (4.5 Exponential and Logarithmic Equations)

	• Worksheet 8 • Quiz 8 • Module 3.9 (4.6 Modeling with Exponential Functions)
3/28/2025	**Exam 3**
3/31/2025	• Module 4.1 (6.1 Angle Measure) • Module 4.2 (6.2 Trigonometry of Right Angles) • Module 4.3 (6.3 Trigonometric Functions of Angles) • Worksheet 9 • Quiz 9 • Quiz 10
4/7/2025	• 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) • Worksheet 10 • Worksheet 11 • Quiz 11
4/14/2025	• 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) • Worksheet 12 • Quiz 12
4/21/2025	• 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) • 4.12 (8.1 Polar Coordinates) • Worksheet 13 • Quiz 13
4/25/2025	**Exam 4**
5/8/2025	**FINAL EXAM**

Course Policies

Academic Integrity

Cheating will not be tolerated. Any student found cheating will receive a zero on that assignment and may receive an F for the course for cheating on an exam. A report will be filed with the Office of Academic Integrity.

Attendance

Research has shown that students who attend class are more likely to be successful. In an online class attendance means regularly completing the student lecture notes as you watch the instructional videos. **It is assumed you will do this**. The instructor will not repeat whole lectures or offer personal lessons in office hours or email. These venues are for specific questions/problems.

In an online course, you have the flexibility to work ahead. For any due date conflict, work ahead. For exams, schedule with me to take it prior to the posted exam date.

Examination Policy

Exams will be administered in Canvas with Respondus Lockdown Browser and will be available during the posted exam period. **Exams not submitted by 11:59 PM receive a zero**, regardless of when you begin the exam. You may access Exams through the *Syllabus* tab on the left side of the Canvas navigation menu, or the content module.

If you **miss an exam, you receive a zero for that exam**. There are **no make-up exams**. However, if you have a university excused absence, according to 06.039 Policy, and provide me documentation within 2 business days of the missed exam, then the zero may be replaced with your final exam grade (this includes missing an exam due to illness/covid-19).

Early Exam

If you have a conflict with a scheduled exam date, you may request to take your exam early. The request must be sent to Canvas Inbox one week prior to your desired early exam date.

Exam Protocol

- Read How to Take Exam with Respondus module in Canvas.
- Clear your test-taking environment and show clean desk surface to webcam.
- Once opened you have 60 minutes to complete the exam. You will have more time for the final exam.
- Do not open the exam unless you are prepared to take the test, and your technology is ready, and in working order.
- No extra time nor re-do's will be granted to account for technical difficulties.
- Work is NOT accepted through email.
- Your work must be submitted on Canvas within 15 minutes of the end of your exam session. NO VALID WORK, NO CREDIT, NO EXCEPTIONS
- Submitted work must correspond exactly to the work shown to the Respondus webcam. Any deviation will result in a zero score for the portion of the exam.

You will be able to see your exam grade on Canvas about one (1) week after the exam. Feel free to connect with me if you'd like to review any problems with me. Decisions regarding credit are final and not open for discussion.

Late Work Policy

UNT is a community of achievers and doers who strive for excellence in everything they pursue. With that in mind, there are standards and expectations set for the class, which include completing and submitting work by the posted due date. Late work is not accepted.

There will be no late exams or retakes. If an exam is not submitted by 11:59PM, then unfortunately a grade of zero will be recorded. (See the Examination Policy for more information.)

Student Support Services & Technical 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 (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 or other technology issues.

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

UIT Help Desk: UIT Student Help Desk (http://www.unt.edu/helpdesk/index.htm)

Email: helpdesk@unt.edu

Phone: 940-565-2324
In Person: Sage Hall, Room 330

Canvas Technical Requirements: Canvas Technical Requirements
(https://clear.unt.edu/supported-technologies/canvas/requirements)

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

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 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.

Students in my class can improve their performance 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 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).

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/) 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

https://registrar.unt.edu/registration/spring-academic-calendar.html