**MATH 1710.620**

# Calculus I (TAMS)

**Fall 2021**

MWF 10:00–10:50 AM, T 9:30–10:50 AM


*Instructor:* Dr. Huguette Tran

*Office Hours:* F2F: MWF 11:00–11:50 AM
F2F: R 8:00–9:20 AM
Remote tutoring: Th 12:00pm-12:50pm,
ID 865 3328 8419

*Office:* GAB 421

*Email:* huguette.tran@unt.edu


**Course Description:** Limits and continuity; derivatives and integrals; differentiation and integration of polynomial, rational, trigonometric, and algebraic functions; applications, including slope, velocity, extrema, area, volume and work.

**Textbook:** *Calculus*, 8th edition, by James Stewart, Cengage, 2016. An electronic version of the textbook is included with WebAssign. You should activate your Cengage Unlimited code as soon as possible so that you can start working on the first homework assignment.

**Technology:** You may use a calculator on homework assignments, but not on quizzes or exams. Some homework questions in WebAssign will require you to scan your handwritten solutions using Google Drive, Microsoft OneDrive, iOS Notes, or other scanning app. I will use the online graphing calculator Desmos to demonstrate selected topics in class.

**Class Materials for Remote Instruction:** Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to a computer that is compatible with Respondus LockDown Browser and Respondus Monitor, along with a webcam, microphone, and broadband Internet connection, to participate in fully remote portions of the class. Information on how to be successful in a remote learning environment can be found at https://online.unt.edu/learn.

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

**Communication:** There are several ways to contact me.

1. If you have a question about a specific homework problem, click "Ask Your Teacher" near the top of the page and follow the prompts. Include a detailed explanation of how you tried to solve the problem.

2. If you have a general question or concern, please send me a Canvas message or an email with "MATH 1710.620" in the subject line. *To protect your privacy, questions about your academic performance must come from your UNT email account.*

**Grading Policy:** Your course grade will be computed as follows:

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| Homework | 10% |
| Quizzes | 15% |
| Exams (3) | 50% |
| Final Exam | 25% |

**Attendance:** Required. More than five unexcused absences may lower your grade. Please notify me in advance if you expect to miss class.

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

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

**Homework:** Homework will completed using WebAssign.

- Students may work together on homework, but you should make an honest attempt to solve each problem before seeking help. You should *not* copy the solution to a problem directly from your classmate's paper or the solutions manual.
- When computing your homework average at the end of the semester, I will drop the **two** lowest homework scores so that your grade will not be affected if you get sick, a family emergency arises, etc. You will still be responsible for the material contained in such assignments during quizzes and exams, however.

**Quizzes:** Quizzes will be given approximately once per week. Quiz problems will be similar to examples in the textbook and/or problems on the previous homework assignment. I will drop your **two** lowest quiz scores at the end of the semester.

**Exams:** If you miss an exam, a score of zero will be recorded and your academic counselor will be notified.

Your score on the final exam will replace your lowest exam score if the final exam score is higher, unless you receive a zero on an exam for cheating.

Everything that I say in class is fair game for exam material. Furthermore, I reserve the right to test your ability to solve generalizations of the material covered in class or the textbook. In short, problems on the exams may not look exactly like the examples presented in class or the assigned homework exercises.

**Final Exam:** A comprehensive final exam will be held on Saturday, 12/4/2021 @ 8:00–10:00 AM.

**How to Study:** Mathematics is a skill that requires practice to develop. It is also a language with its own rules and conventions. In order to master the course material, you must exert consistent effort throughout the semester.

- Read the relevant section of the textbook prior to each class period.
- Start working on each homework assignment immediately.
- Come to office hours if you don't understand something we covered in class.

**Students with Disabilities:** The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable 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 reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable 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, refer to the Office of Disability Access website at https://studentaffairs.unt.edu/office-disability-access. You may also contact ODA by phone at (940) 565-4323.

**Academic Dishonesty:** Students caught cheating or plagiarizing will be subject to any penalty the instructor deems appropriate, ranging from receiving 0 (zero) points on that particular assignment to course failure. Additionally, the incident will be reported the the Office of Academic Integrity, who may impose further penalty.

According to the UNT catalog, the term "cheating" includes, but is not limited to:

(a) use of any unauthorized assistance in taking quizzes, tests, or examinations;

(b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;

(c) the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university;

(d) dual submission of a paper of project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or

(e) any other act designed to give a student an unfair advantage.

Furthermore, attempts to circumvent LockDown Browser or Monitor (e.g., obstructing your webcam or microphone) during a quiz or exam will automatically be considered cheating.

The term "plagiarism" includes, but is not limited to:

(a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and

(b) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

**Acceptable Student Behavior:** Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's Code of Student Conduct (https://deanofstudents.unt.edu/conduct) to learn more.

**Access to Information — Eagle Connect:** Your access point for business and academic services at UNT occurs at my.unt.edu. All official communication from the university will be delivered to your Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward your e-mail: eagleconnect.unt.edu.

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

**Retention of Student Records:** Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. You have a right to view your individual record; however, information about your records will not be divulged to other individuals without proper written consent. You are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the university's policy in accordance with those mandates at the following link: essc.unt.edu/registrar/ferpa.html.

**Student Evaluation of Instruction:** 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. This short survey will be made available at the end of the semester to provide you with an opportunity to evaluate how this course is taught.

**Succeed at UNT:** UNT endeavors to offer you a high-quality education and to provide a supportive environment to help you learn and grow. As a faculty member, I am committed to helping you be successful as a student. Here's how to succeed at UNT: Show Up. Find support. Get advised. Be prepared. Get involved. Stay focused.

To learn more about campus resources and information on how you can achieve success, go to success.unt.edu.

| Date | Stewart 8e Fall 2021 | HW |
|---|---|---|
| Mon 8/23/21 | **First day of class** | |
| Tue 8/24/21 | | |
| Wed 8/25/21 | Mathematical Induction | |
| | | Mathematical |
| Thu 8/26/21 | Mathematical Induction | Induction A |
| Fri 8/27/21 | Induction Problems with Inequalities | |
| | | Mathematical |
| | | Induction B |
| Mon 8/30/21 | 1.4 The Tangent and Velocity Problems | |
| Tue 8/31/21 | | |
| Wed 9/1/21 | 1.5 The Limit of a Function | Calculus Readiness |
| Thu 9/2/21 | 1.6 Calculating Limits Using the Limit Laws | HW 1.4 |
| Fri 9/3/21 | 1.6 Calculating Limits Using the Limit Laws | |
| | | HW 1.5 |
| Mon 9/6/21 | Labor Day | |
| Tue 9/7/21 | | |
| Wed 9/8/21 | 1.8 Continuity | |
| Thu 9/9/21 | **Quiz 1 (1.4-1.5)** | HW 1.6 |
| Fri 9/10/21 | 1.8 Continuity | |
| | | HW 1.8 |
| Mon 9/13/21 | 1.7 The Precise Definition of a Limit | |
| Tue 9/14/21 | | |
| Wed 9/15/21 | 1.7 The Precise Definition of a Limit | |
| Thu 9/16/21 | **Quiz 2 (1.6 & 1.8)** | |
| Fri 9/17/21 | 2.1 Derivatives and Rates of Change | HW 1.7 |
| Mon 9/20/21 | 2.2 The Derivative as a Function | |
| Tue 9/21/21 | | |
| Wed 9/22/21 | 2.3 Differentiation Formulas | |
| Thu 9/23/21 | **Exam 1 (Induction & Section 1.4-1.8)** | HW 2.1 |
| Fri 9/24/21 | 2.3 Differentiation Formulas | |
| | | HW 2.2 |
| Mon 9/27/21 | 2.4 Derivative of Trigonometric Functions | |
| Tue 9/28/21 | | |
| Wed 9/29/21 | 2.5 The Chain Rule | |
| Thu 9/30/21 | **Quiz 3 (2.1-2.2)** | HW 2.3-2.4 |
| Fri 10/1/21 | 2.6 Implicit Differentiation | |
| | | HW 2.5 |
| Mon 10/4/21 | 2.7 Rates of Change in the Natural and Social Sciences | |
| Tue 10/5/21 | | Quiz 4 (2.3-2.5) |
| Wed 10/6/21 | 2.8 Related Rates | |
| Thu 10/7/21 | **Quiz 4 (2.3-2.5)** | HW 2.6-2.7 |

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| Fri 10/8/21 | 2.8 Related Rates | |
| | | HW 2.8 |
| Mon 10/11/21 | 2.9 Linear Approximations and Differentials | |
| Tue 10/12/21 | | |
| Wed 10/13/21 | 3.1 Maximum and Minimum Values | |
| Thu 10/14/21 | **Quiz 5 (2.6-2.8)** | HW 2.9 |
| Fri 10/15/21 | 3.2 The Mean Value Theorem | |
| | | HW 3.1 |
| Mon 10/18/21 | 3.3 How Derivatives Affect the Shape of a Graph | |
| Tue 10/19/21 | | |
| Wed 10/20/21 | 3.4 Limits at Infinity; Horizontal Asymptotes | |
| Thu 10/21/21 | **Exam 2 (Section 2.1-2.9, 3.1)** | HW 3.2 |
| Fri 10/22/21 | 3.5 Summary of Curve Sketching | |
| | | HW 3.3 |
| Mon 10/25/21 | 3.7 Optimization Problems | |
| Tue 10/26/21 | | |
| Wed 10/27/21 | 3.7 Optimization Problems | |
| Thu 10/28/21 | **Quiz 6 (3.1-3.3)** | HW 3.4-3.5 |
| Fri 10/29/21 | 3.9 Antiderivatives | |
| | | HW 3.7 |
| Mon 11/1/21 | 3.9 Antiderivatives | |
| Tue 11/2/21 | | |
| Wed 11/3/21 | 4.1 Areas and Distances | |
| Thu 11/4/21 | **Quiz 7 (3.4-3.5, 3.7)** | HW 3.9 |
| Fri 11/5/21 | 4.2 The Definite Integral | |
| | | HW 4.1-4.2 |
| Mon 11/8/21 | 4.3 The Fundamental Theorem of Calculus | |
| Tue 11/9/21 | | |
| Wed 11/10/21 | 4.4 Indefinite Integrals and the Net Change Theorem | |
| Thu 11/11/21 | **Quiz 8 (3.9-4.2)** | HW 4.3 |
| Fri 11/12/21 | 4.5 The Substitution Rule | |
| Mon 11/15/21 | 4.5 The Substitution Rule | |
| Tue 11/16/21 | | |
| Wed 11/17/21 | 5.1 Areas Between Curves | |
| Thu 11/18/21 | **Exam 3 (Section 3.2-3.5, 3.7, 3.9, & 4.1-4.2)** | HW 4.4 |
| Fri 11/19/21 | 5.2 Volumes | |
| | | HW 4.5 |
| Mon 11/22/21 | 5.3 Volumes by Cylindrical Shells | |
| Tue 11/23/21 | | |
| Wed 11/24/21 | **Quiz 9 (4.3-4.5)** / 5.3 Volumes by Cylindrical Shells | |
| Thu 11/25/21 | **Thanksgiving Break** | |
| Fri 11/26/21 | **Thanksgiving Break** | |
| | | HW 5.1-5.2 |

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|---|---|---|
| Mon 11/29/21 | 5.5 Average Value of a Function | |
| Tue 11/30/21 | | |
| Wed 12/1/21 | 5.5 Average Value of a Function | |
| Thu 12/2/21 | **Quiz 10 (5.1-5.3)** | HW 5.3 |
| Fri 12/3/21 | Reading Day | |
| Sat 12/4/21 | **Final Exam (8:00-10:00 am)** | |