

Math 1190.001 Business Calculus

Spring 2021

Instructor: Brad Thompson	Office: 470 C (office meetings by appointment)
Office/Zoom hours: Zoom office hours (see Canvas for link) Monday 12-1:30 Tuesday 10-12 In person office hours by appointment	Email: Bradley.thompson@unt.edu Policy: Include course name, number and section and your full name in the subject header. Email will be returned in a timely manner, but may occasionally take up to two (2) business days.
Class meets: Course MATH 1190 Section 001 MWF 9:00 am – 9:50 am BLB 170	Final Exam date and time: Room location: Regular classroom http://registrar.unt.edu/exams/final-exam-schedule
Course Structure: This course will be a face-to-face class, but significant portions of the content will be available online. Please keep your health as the primary concern. Do not come to class if you feel sick.	
Course description: Differential and integral calculus with emphasis on applications to business. Prerequisite(s): Two years of high school algebra and consent of department; or MATH 1100 or MATH 1180 with a grade of C or better.	
Online Materials: This course has no physical textbook. Homework assignments will require accessing Knewton or Canvas quizzes through your UNT Canvas account.	
Calculator Policy: No specific calculators will be required for the class.	
Evaluation: Homework 20% 3 Midterm Exams 20% each Final Exam 20%	Grade Assignment: A: [90%,); B: [80%, 90%); C: [70%, 80%); D: [60%, 70%); F: [0%, 60%). Be sure to be aware of any minimum grade based on your major or other course requirements. Math 1190 is not intended to serve as a prerequisite for any other math course.
Grade Determination: Student grade is determined solely by his/her performance on the evaluation criteria. Grades reflect your proficiency of the course content as you have demonstrated them on the evaluation criteria.	

Learning objectives:

Upon successful completion of this course, students will:

1. Apply calculus to solve business, economics, and social sciences problems.
2. Apply appropriate differentiation techniques to obtain derivatives of various functions, including logarithmic and exponential functions.
3. Solve optimization problems with emphasis on business and social sciences applications.
4. Determine appropriate technique(s) of integration.
5. Integrate functions using the method of integration by parts or substitution, as appropriate.
6. Solve business, economics, and social sciences applications problems using integration techniques.

Policies directly affecting grades/grading

Homework: Homework will all be due on Canvas at unt.instructure.com . Most of the homework is provided through Knewton, though there may be some assignments that are found directly on Canvas. This software is a mastery-based, adaptive software, which is intended to thoroughly judge your ability to complete the assignments. You will be able to proceed through Knewton much more quickly if you review your notes and seek out additional review/help before starting the assignments. **Read through “How Knewton works” in Canvas before your first assignment for best results.**

Homework is due at 11:59 pm on the date listed. **Assignments are given throughout the week as specified in the calendar.** To successfully complete the assignments, you must carefully manage your time. I would recommend that you plan to complete assignments well ahead of time at a routine time. This will allow you to bring questions to class and then work through the assignments more quickly.

- **Getting the most out of the homework**

- You should have a dedicated notebook for your math homework. Carefully write out your work, especially noting the questions you struggled with. This should form a substantial part of your review material prior to the exams.
- Homework is one piece of your learning process in this course, but successful completion of the homework assignments should not be considered sufficient preparation for exams. Discuss with your instructor what else you should be doing to get prepared.

Midterm Exams: Three in-class exams are planned for this semester. Keep a record of all your scores. Be sure to review your exam upon receiving it. Check your written exam grade with the grade posted online to ensure that they are the same. Each exam is 20% of the course. Tentative dates are listed on the attached calendar. The final exam is comprehensive.

Final Exam: The final exam is on Wednesday, April 28 8:00 am – 10:00 am. The final exam is comprehensive and is 20% of the course grade.

Drop/Withdrawal Policy: If the student is unable to complete this course, it is his/her responsibility to formally withdraw from the course. Until 1/25, students may drop a course from their student portal on my.unt.edu (and depending on the date, may be eligible for at least a partial refund). From 1/26 to 4/2, students may drop a course by following the instructions at <https://registrar.unt.edu/registration/dropping-class>. The last date to withdraw from all of your classes is 4/2. If the student does not properly withdraw from the course but stops attending, s/he will receive a performance grade, usually an F.

If you are considering dropping, it is strongly recommended that you discuss the matter with me as soon as possible.

Changes to the University’s policy may affect this. Please contact the Registrar for further questions.

Incomplete, the Grade of: Beginning 4/3, a student that qualifies may request a grade of “I”, incomplete. An “I” is a non-punitive grade given only if ALL three of the following criteria are satisfied. They are:

- The student is passing the course;
- The student has a justifiable (and verifiable) reason why the work cannot be completed as scheduled; and
- The student arranges with the instructor to complete the work within one academic year.

Make-up Exam Policy: An exam may be taken prior to the scheduled date. I request a week’s notice for this accommodation via email. In the event of a schedule conflict with a university function, dental/physician’s appointment, wedding, formal, or whatever, the student must take the test early. If a student does not take a scheduled exam, a zero will be recorded for that exam and a notice may be sent through the registrar’s office.

There are several midterm exams. If your final exam score is higher than one of your mideterm exam scores, then that in-class exam grade will be replaced with final exam grade. If you miss an in-class exam, a zero will be recorded for that exam grade and your final exam score will replace that one zero. If you receive a zero for academic dishonesty on an exam, the final exam score will NOT replace that zero.

Attendance Policy

Attendance will be taken to help contact tracing. Remember to keep your health as top priority and do not come to class if you feel ill. Attendance will not directly affect your grade, but attendance is recommended. Some notes from class will be posted on Canvas.

Important dates:

Classes Begin	1/11
Mar□n Luther King Holiday (no classes; university closed)	1/18
Beginning this date a student may drop a course with a grade of W by completing the Request to Drop a Course form and submitting it to the Registrar's Office. See link for complete instructions Dropping a Class .	1/26
Last day for a student to drop a course. Grades of W are assigned.	4/2
Beginning this date, a student who qualifies may request an Incomplete, with a grade of I.	4/3
Last day to withdraw (drop all classes). Grades of W are assigned.	4/2
Pre-Finals Days	4/21-4/22

Reading Day (no classes)	4/23
Final Exams	4/24-4/30

University Policies:

COVID-19 Impact on Attendance

While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me prior to being absent so I may make a decision about accommodating your request to be excused from class.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) 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 Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

Class Materials for Remote Instruction

The UNT fall schedule requires this course to have fully remote instruction beginning November 28th. Additional 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 [webcam and microphone – faculty member to include what other basic equipment is needed] to participate in fully remote portions of the class. Additional required classroom materials for remote learning include: [list specific software, supplies, equipment or system requirements needed for the course]. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>.

Statement on Face Covering

Face coverings are required in all UNT facilities. Students are expected to wear face coverings during this class. If you are unable to wear a face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering requirements are subject to change due to community health guidelines. Any changes will be communicated via the instructor.

Additional Course and University Policies

Academic Integrity Standards and Consequences. 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.

ADA Accommodation Statement. UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (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 [ODA website](#). You may also contact them by phone at 940.565.4323.

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 Blackboard for contingency plans for covering course materials.

Classroom Etiquette:

Appropriate behavior is expected of all students taking this course. Arrive to class promptly and do not leave until the scheduled ending time of the class. If you must arrive late or leave early, please do so as discreetly as possible and take a seat near the door. Turn off all non-medical electronic devices such as pagers, cell phones, laptops, etc. Take off the headphones. Do not read newspaper or work on unrelated assignments during class. I prefer that you not eat during class.

Course Requirements: As a general rule, average college students are expected to spend three (3) hours per week for each one (1) hour of class working on the course to be able to successfully learn the content. If you are an "average" college-level learner, you should spend about nine (9) hours per week if you expect to successfully complete this course. Adjust for more (or less) hours to accommodate your learning level.

Math Lab (Location: Sage 130): Go to the website: <https://learningcenter.unt.edu/math-lab> for information.

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. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

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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 Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Technical Assistance

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.

UIT Help Desk: [UIT Student Help Desk site](http://www.unt.edu/helpdesk/index.htm) (<http://www.unt.edu/helpdesk/index.htm>)

Email: helpdesk@unt.edu

Phone: 940-565-2324

In Person: Sage Hall, Room 130

Walk-In Availability: 8am-9pm

Telephone Availability:

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm
- Saturday: 9am-5pm

Laptop Checkout: 8am-7pm

Student Perceptions of Teaching (SPOT): 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 SPOT survey will be made available later this semester to provide you with an opportunity to evaluate how this course is taught. You will receive an email on from "UNT SPOT Course Evaluations via IASystem Notification"(no-reply@iasystem.org) with the survey link. Please look for the email in your UNT email inbox. Simply click on the link and complete your survey. Once you complete the survey you will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website at www.spot.unt.edu or email spot@unt.edu.

Sexual Assault Prevention

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship

violence, stalking and/or sexual assault, there are campus resources available to provide support and assistance. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-565-2648. Visit [Title IX Student Information](#) for more resources.

Undocumented Students

Please see UNT'S [Resources for DACA Students](#) web page for more information.

Web Accessibility & Privacy

Please find the web accessibility and privacy statements for UNT, Canvas, and all CLEAR supported technologies below.

UNT

- [Web Accessibility Policy](#)
- [Privacy Statement](#)

Canvas/Instructure

- [Accessibility Statement](#)
- [Privacy Policy](#)

CLEAR Supported Technologies

- See [CLEAR's Supported Technologies web page](#) for links to Accessibility Statements and Privacy Policies.

Copyright Notice

Materials used in connection with this course may be subject to copyright protection. Materials may include, but are not limited to: documents, slides, images, audio, and video. Materials in this course Web site are only for the use of students enrolled in this course, for purposes associated with this course, and may not be retained for longer than the class term. Unauthorized retention, duplication, distribution, or modification of copyrighted materials is strictly prohibited by law. For more information, visit the [UNT Policy Office](#) or [Copyright.gov](#).

Student Support Services

Mental Health

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](#)
- [Counseling and Testing Services](#)
- [UNT Care Team](#)
- [UNT Psychiatric Services](#)
- [Individual Counseling](#)

Chosen Names

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](#)
- [UNT ID Card](#)
- [UNT Email Address](#)
- [Legal Name](#)

**UNT EUIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

Additional Student Support Services

- [Registrar](#)
- [Financial Aid](#)
- [Student Legal Services](#)
- [Career Center](#)
- [Multicultural Center](#)
- [Counseling and Testing Services](#)
- [Pride Alliance](#)
- [UNT Food Pantry](#)

Academic Support Services

- [Academic Resource Center](#)
- [Academic Success Center](#)
- [UNT Libraries](#)
- [Writing Lab](#)

A tentative calendar is below. Dates may change if the need arises. Announcements will be made in class and Canvas to reflect any necessary changes.

Tentative Calendar

	Monday	Tuesday	Wednesday	Thursday	Friday
<i>Week 1:</i>	01/11/21	01/12/21	01/13/21	01/14/21	01/15/21
	Material to cover: Introduction to class., 1.1 Idea of a limit		Material to cover: 1.1 Idea of a limit cont.		Material to cover: 1.2 Limit rules Knewton Due: 1,2
<i>Week 2:</i>	01/18/21	01/19/21	01/20/21	01/21/21	01/22/21
	MLK Day		Material to cover: 1.3 Continuity Knewton Due: 3,4		Material to cover: 1.4 Limits at infinity Knewton Due: 5,6
<i>Week 3:</i>	01/25/21	01/26/21	01/27/21	01/28/21	01/29/21
	Material to cover: 1.5 Average rate of change and tangent lines by graphing Knewton Due: 7		Material to cover: 1.6 Definition of the derivative Knewton Due: 8,9		Material to cover: 1.7 Derivative rules, part 1: Constant, Power, Sum and difference Knewton Due: 10,11,12
<i>Week 4:</i>	02/01/21	02/02/21	02/03/21	02/04/21	02/05/21
	Material to cover: Review Knewton Due: 13,14,15		Material to cover: 1.8 Derivative rules, part 2: Exponential and logarithmic functions Knewton Due: 16		Material to cover: Review Knewton Due: 17
<i>Week 5:</i>	02/08/21	02/09/21	02/10/21	02/11/21	02/12/21
	Material to cover: Review	Due in Canvas: 18. Unit 1 Wrapup	Exam 1		Material to cover: 2.1 Product and quotient rules
<i>Week 6:</i>	02/15/21	02/16/21	02/17/21	02/18/21	02/19/21
	Material to cover: 2.2 Chain rule Knewton Due: 19		Material to cover: Review Knewton Due: 20		Material to cover: 2.3 Marginal applications to business Knewton Due: 21
<i>Week 7:</i>	02/22/21	02/23/21	02/24/21	02/25/21	02/26/21
	Material to cover: 2.4 Elasticity of demand Knewton Due: 22		Material to cover: 2.5 First derivative test and graphing Knewton Due: 23 Due in Canvas: 24. Marginal Average Cost		Material to cover: 2.5 First derivative test and graphing cont. Knewton Due: 25,26
<i>Week 8:</i>	03/01/21	03/02/21	03/03/21	03/04/21	03/05/21
	Material to cover: 2.6 Using the second derivative Knewton Due:		Material to cover: 2.7 Absolute Extrema Knewton Due: 29		Material to cover: 2.7 Absolute Extrema cont. Knewton Due: 30

	Monday	Tuesday	Wednesday	Thursday	Friday
	27,28				
Week 9:	03/08/21	03/09/21	03/10/21	03/11/21	03/12/21
	Material to cover: 2.8 Optimization Knewton Due: 31		Material to cover: Review Knewton Due: 32	Due in Canvas: 33. Unit 2 Wrapup	Exam 2
Week 10:	03/15/21	03/16/21	03/17/21	03/18/21	03/19/21
	Material to cover: 3.1 Antiderivatives		Material to cover: 3.2 Substitution Knewton Due: 34		Material to cover: 3.3 The area question Knewton Due: 35
Week 11:	03/22/21	03/23/21	03/24/21	03/25/21	03/26/21
	Material to cover: 3.3 The area question cont. Knewton Due: 36		Material to cover: 3.4 Definite integrals and rules for definite integrals Knewton Due: 37,38		Material to cover: 3.4 Definite integrals and rules for definite integrals cont. Knewton Due: 39
Week 12:	03/29/21	03/30/21	03/31/21	04/01/21	04/02/21
	Material to cover: 3.5 Fundamental theorem of calculus Knewton Due: 40		Material to cover: 3.5 Fundamental theorem of calculus cont. Knewton Due: 41		Material to cover: 3.6 Area between curves; Gini index Knewton Due: 42
Week 13:	04/05/21	04/06/21	04/07/21	04/08/21	04/09/21
	Material to cover: 3.6 Area between curves; Gini index cont. Knewton Due: 43		Material to cover: 3.7 Applications of integration Knewton Due: 44		Material to cover: 3.7 Applications of integration cont. Knewton Due: 45,46 Due in Canvas: 47. Gini index
Week 14:	04/12/21	04/13/21	04/14/21	04/15/21	04/16/21
	Material to cover: 3.8 Additional integration topics* Knewton Due: 48		Material to cover: Review Knewton Due: 49		Material to cover: Review Due in Canvas: 50. Unit 3 Wrapup
Week 15:	04/19/21	04/20/21	04/21/21	04/22/21	04/23/21
	Exam 3		Material to cover: Review		Reading Day
Week 16:	04/26/21	04/27/21	04/28/21	04/29/21	04/30/21
Finals Week					