

Math 1190: Business Calculus (Hybrid)

Instructors' Information

Instructor of Record for 1190.440 and Instructor for Sections 201-204:

Marc Grether

Office Location: GAB 416

Email: grether@unt.edu

Office Hours: Tutoring/Office Hours: In person Wednesday – 9:30AM-11AM, 1:30PM-3PM, Thursday 10AM-10:45AM, 12:45PM-2PM I try to hold substantial time available for online zoom appointments Email me to schedule times.

Instructor for Sections 205 – 208: Minyi Chen

Office Location: GAB 427

Email: Minyi.Chen@unt.edu

Office Hours: Tutoring/Office Hours: In person hours: Tuesdays from Noon-2PM.

Instructor for Sections 209 – 212: Joel Saroni

Office Location: GAB 442E

Email: Joel.Saroni@unt.edu

Office Hours: Tutoring/Office Hours: In person hours: Wednesday from 3:30-5:30PM.

Meeting location and time – be sure to attend your scheduled class time. You will not receive credit for attending a course meeting except the section you are enrolled in.

Section Meeting Location In Person Meeting Time Final Exam Time (location is your normal meeting room)

201	BLB 075	Tues 9:05am-9:55am	Thursday, 12/10 at 8AM
202	BLB 075	Tues 10:10am-11am	Tuesday, 12/8 at 10:30AM
203	ART 219	Tues 1:25pm-2:15pm	Thursday, 12/10 at 1PM
204	ENV 190	Tues 2:30pm-3:20pm	Tuesday, 12/8 at 3:30PM
205	ENV 190	Tues 3:35pm-4:25pm	Monday, 12/7 at 3:30PM
206	BLB 040	Wed 9:05am-9:55am	Monday, 12/7 at 8AM
207	BLB 040	Wed 10:10am-11am	Wednesday, 12/9 at 8AM
208	BLB 060	Tues 10:10am-11am	Tuesday, 12/8 at 10:30AM
209	BLB 255	Wed 11:15am-12:05pm	Saturday, 12/5 at 10:30AM
210	BLB 255	Wed 12:20pm-1:10pm	Monday, 12/7 at 10:30AM
211	BLB 060	Wed 1:25pm-2:15pm	Wednesday, 12/9 at 10:30AM
212	BLB 140	Wed 2:30pm-3:20pm	Saturday, 12/5 at 1PM

Communication Expectations:

Mr. Grether typically responds in one (1) business day, during business hours. A message received after business hours is considered received the next business day. The best way to reach me is via email. Mr. Grether will work hard to respond as quickly as possible to emails, but it may occasionally take me up to a business day to respond. Though Mr. Grether might reply to an email late at night or on the weekend, you should not expect quick responses outside of the hours of 8am -5pm.

Course Description

Differential and integral calculus with emphasis on applications to business.

Course Prerequisites

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.

Course Structure

This is a 15 week hybrid course with online requirements and in-person class requirements. There will be 3 in-class exams and an in-person Final Exam. Due dates for this courses were designed to integrate the online material with the in person class meetings and should be followed carefully. Each in person class meeting will have a grade associated with it and it is important that you attend every in person class meeting.

What makes this class special: This course is specifically intended to “personalize the learning experience to improve outcome.” Business calculus has often been a difficult course for students and a goal in organizing the course in this fashion is to give students the best chance for success. I have gone to great lengths to make the material accessible and relevant and I greatly hope that this course will be a good experience for you.

Course 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.

In this course, you will be evaluated for the following 3 Core Curriculum requirements - **Empirical and Quantitative Skills**, **Critical Thinking**, and **Communication**. These skills are embedded throughout the course and the assessment of them will occur using distinct criteria from your grades.

In addition to all of those requirements, elements of this course have been specifically designed to encourage deeper thought into the subject matter but also to help develop each student into a better student. This course is centered around the idea that the topics covered are worth doing, at an appropriate level given students' prior coursework and will hold students to high expectations.

ADA Policy

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is

confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course. You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access resources that can support your needs, refer to the [Office of Disability Access](https://studentaffairs.unt.edu/office-disability-access) website (<https://studentaffairs.unt.edu/office-disability-access>).

Course Materials

All of the out of class assignments will be available directly in Canvas. There is no additional text or homework platform that you will need to purchase for this course. You will need to print certain materials for this course as well as bring a pen/pencil to class each class day. A calculator will be useful many days (see calculator policy).

As a design feature of the course, I have worked hard to make all materials (course content, out of class assignments, etc.) directly available in Canvas. As mathematics uses many specialized symbols, it may be useful for students using assistive technology to increase verbosity and punctuation settings. For those who prefer to print out materials, pdf versions of the material are also available.

Course Technology & Skills

This course has digital components. To fully participate in this class, students will need internet access to reference content on the [Canvas Learning Management System](#).

Minimum Technology Requirements and required skills

- A working computer with speakers that can reliably access the internet and access Canvas and view content videos on Canvas (or, if any issues arise on Canvas, possibly on Youtube)
- A calculator (see Calculator Policy)
- Ability to download, install and run software
- Proficiency in using Canvas
- Proficiency in using your calculator

You are encouraged to use appropriate technology for many portions of the course. This will not lessen your need to memorize certain facts and processes, but among the options I'd highly recommend are Desmos. Importantly Desmos is designed for all learners and includes [Accessibility Features](#).

Calculator Policy

Many calculators will be sufficient for the exams on this class. Among good options are the TI-36X, TI-30XIIS, TI-83 or TI-84 (or similar Casio, other manufacturer's calculators). Examples of calculators not allowed: TI-Nspires, TI 92's, TI 89's. Any other utility with alphanumeric/CAS capabilities or the ability to connect to the internet, such as a smartphone.

Scantrons for Exams: I will require you to use a **Form 4521 blue Scatron** on each exam. To facilitate distribution of the scantrons, I will require that you turn in **four** (one for each midterm and one for the final) of them to me by September 4th. I will discuss this more in class.

Course Evaluation

Preview Assignments	10%
Homework	15%
In-Class Work	10%
Midterm Exams	45% total (Average of all exams)
Final Exam	20%

Grade Assignment:

A: [90%, 100%]; B: [80%, 90%]; C: [70%, 80%]; D: [60%, 70%]; F: [0%, 60%).

Policies/information directly affecting grades/grading

Homework:

What I think of as homework will have two flavors in this course - Preview Assignments and Homework. All assignments will be due on Canvas and will technically be called quizzes by Canvas. All assignments will be due at 11:59PM Central time on the date it is due.

Preview Assignments (worth 10% of your overall grade): The preview assignments will typically have a short reading and/or video to watch to prepare and then you will have some questions to answer based on this information. These assignments are designed to prepare you for the In-Class Work. All preview assignments will be due on **Mondays**. I will not extend due dates for the preview assignments as they are intended to help prepare you for the In-Class Work.

Homework (worth 15% of your overall grade): A primary purpose of homework is to provide you with sufficient opportunities to learn and practice the new content you are learning in a lower stakes environment.

For consistency, all homework assignments will be due on **Fridays**. Some weeks will have more assignments due than others. This is not intended to encourage you to do all of your homework on Friday – you should try to consistently work on the assignments throughout the week.

Be sure to keep up with the homework and to use the homework to aid your learning.

Get the Most out of Homework

- You should have a dedicated notebook for your math homework. Carefully write out your work, especially noting the questions with which you struggled. 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 is not sufficient preparation for exams. You must be able to work the exercises on your own without any aids on exams. Intentionally short circuiting the learning process on the homework tends not to work well.

Midterm Exams

Three in-class exams are planned for this semester and will be given in class, on paper. The midterm exams account for a total of 45% of the overall course grade. Dates for the exams are listed on the attached calendar. The final exam is comprehensive.

Final Exam:

The final exam will take place in person and based on the UNT Final's schedule. The final exam is comprehensive and is 20% of the course grade. For a full list of Final Exam dates and time see this [Link](#). The format of the final exam will be the same as the format of the midterm exams, except longer as you have two hours to complete the final exam.

Examination Policy

Exams are closed book, on paper and done in class during the time listed on the syllabus unless an announcement of a change is made in class. I work hard to structure my course in such a way that balances the time necessary for students to learn the necessary content with the need to have regular midterm exams. As such, students are expected to take the exams on the given day. In the event of a schedule conflict with a university function, dental/physician's appointment, wedding, formal, etc., the student must take the test early if at all possible. I request a week's notice for this accommodation via email. In the event that an unavoidable conflict/illness comes up, reach out to me as soon as you can. If a student does not take a scheduled exam, a zero may be recorded for that exam. If your final exam score is higher than one of your midterm exam scores, then that midterm exam grade will be replaced with final exam grade. If you receive a zero for academic dishonesty on an exam, the final exam score will NOT replace that zero.

Assignment Policy

All out-of-class assignments are due online through Canvas.

Late Work

Due dates are expected to be followed and are intended to allow you time to complete the course on time. As such, I will rarely accept late work. If exceptional circumstances occur, please reach out to me as soon as possible.

Instructor Responsibilities and Feedback

My goal in this course is to provide an environment conducive to your learning. I will work hard to be available outside of class during my tutoring/office hours, via email or via Zoom. I welcome questions about any portion of the course and am happy to clarify any issues if they come up. Most homework assignments are automatically graded and you can review your work on the Canvas assignments the day after they are due. I make it a priority to grade exams quickly, but my past experience suggests that this can take me up to two weeks to get them back to you.

Drop/Withdrawal Policy

If the student is unable to complete this course, it is his/her responsibility to formally withdraw from the course. You can find more details about dropping the course [at this link](#).

If the student does not properly withdraw from the course but stops attending, the student 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.

Incomplete

Three quarters of the way through the semester (see the [Academic Calendar](#) for the exact date), 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.

Syllabus Change Policy

This syllabus is subject to change. Any changes will be announced in class and the updated syllabus will be posted in Canvas.

Attendance and Participation

This class will meet in person only once per week. Each In Class meeting will have at least one assignment and attendance will be recorded. The In-Class Work will account for 10% of the overall course grade. Attendance at each in person meeting will be very important and will always have a grade component. However, this class will also require you to work diligently outside of class and consistently meet deadlines. It would be a very wise idea to schedule what time you are going to meet outside of class to complete the remainder of the material. As learning works best in small chunks over time, it would be better to plan for three (or more) one hour sessions outside of class than one three hour session. The staggered due dates in class are intended to encourage this behavior as well.

UNT has additionally suggested we mention that research has shown that students who attend class are more likely to be successful. You should attend every class and participate fully unless you have a university excused absence such as active military service, a religious holy day, or an official university function as stated in the [Student Attendance and Authorized Absences Policy \(PDF\)](#). If you cannot attend a class due to an emergency, please let me know. Your safety and well-being are important to me. Even if you are unable to attend, students are responsible for all information given in class.

Emergency Notification and Procedures

Students will be notified by Eagle Alert if there is a campus closing that will impact a class. The calendar is subject to change: see the [Emergency Notifications and Procedures Policy](#)

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 your headphones. Do not play on your phone or work on unrelated assignments during

class. I reserve the right to ask disruptive students (texters, those using a computer for non-class related work, etc.) to leave class. You will be considered absent if you are asked to leave. Again, it is considered a serious violation of your responsibilities as a student to be on a computer or your mobile device during class. It distracts you, lowers your performance in class and does the same for those around you. Please read the New Yorker article I've posted on Canvas for more information about this. Students misusing electronic devices for non-academic reasons distract others and may be asked to leave. See also #8 on the [10 academic rights that is linked here](#).

Recommended Steps to Succeed

I hope this advice will be helpful for you. It consists of my observations in the time I have been teaching. I have observed two character traits common to successful students. The traits are maturity and time commitment. Learning requires working when you don't want to – that requires maturity. Learning also requires consistent and diligent dedication of time.

Some additional specific steps:

- Learning math requires a great deal of time and honest effort along with regular and consistent work.
- After class review your notes. If you have questions, ask immediately.
- Actively read through all recommended readings.
- Use the time you spend on your homework assignments to learn the material rather than just getting through the homework as fast as possible.
- Complete the Exam Reviews prior to each exam.
- Form a study group with your classmates. Create online groups.
- Make use of the tutoring options available to you: the [Math Lab](#), the [Learning Center](#), and your instructor's tutoring hours.
- The [Learning Center](#) offers several tutoring options: Drop-In Tutoring, One-on-One Tutoring, Group Tutoring and Online Tutoring. Additional links for places you can get help at UNT is on the Academic Support and Student Services page in the Canvas Start Here module.
- Work on the assignments consistently well ahead of due date. Waiting until the last minute is a horrible idea.
- Math is not a spectator sport. You must try the problems, finish problems, ask questions, correct your mistakes, put concepts in your own words, and practice, practice, practice. You learn math by doing, not by watching others do math.
- Contact your instructor immediately if you are having problems.

As an adult, you need to **self-advocate**. If you are having problems, you are expected to seek help. Most of you, at some point in your college career you will run into problems and need to ask for help – don't wait, reach out as soon as you realize you have an issue.

Supporting Your Success and Creating an Inclusive Learning Environment

Every student in this class should have the right to learn and engage within an environment of respect and courtesy from others. We will discuss our classroom's habits of engagement and I also encourage you to review UNT's student code of conduct so that we can all start with the same baseline civility understanding ([Code of Student Conduct](#)).

Summary of key dates:

Review the registrar's [Academic Calendar & Key Dates](#)

Academic Integrity Policy

Cheating on tests, quizzes or final exams is a serious breach of academic standards and will be punished severely and generally result in a student failing the course. All work done on exams and quizzes must represent only the student's own work, unless otherwise stated in the directions. 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. See [Academic Integrity](#) for details on academic integrity policies at UNT.

Tentative Weekly Calendar

Week 1

Monday 8/17/2026 Due in Canvas: Week 1 Preview Assignment and Quiz

Class meeting on 08/18/26 or 08/19/26 Introduction to class, Limit Preview Material to cover: Introduction to class, Limit Preview

Friday 8/21/2026 Due in Canvas: 1.1

Week 2

Monday 8/24/2026 Due in Canvas: Week 2 Preview Assignment and Quiz

Class meeting on 08/25/26 or 08/26/26

Friday 8/28/2026 Due in Canvas: 1.2,1.3

Week 3

Monday 8/31/2026 Due in Canvas: Week 3 Preview Assignment and Quiz

Class meeting on 09/01/26 or 09/02/26

Friday 9/4/2026 Due in Canvas: 1.4,1.5

Week 4

Monday 9/7/2026 Due in Canvas: Week 4 Preview Assignment and Quiz

Class meeting on 09/08/26 or 09/09/26

Friday 9/11/2026 Due in Canvas: 2.1,2.2

Week 5

Monday 9/14/2026 Due in Canvas: Week 5 Preview Assignment and Quiz

Class meeting on 09/15/26 or 09/16/26 Exam 1

Friday 9/18/2026

Week 6

Monday 9/21/2026 Due in Canvas: Week 6 Preview Assignment and Quiz

Class meeting on 09/22/26 or 09/23/26

Friday 9/25/2026 Due in Canvas: 2.3,2.4

Week 7

Monday 9/28/2026 Due in Canvas: Week 7 Preview Assignment and Quiz

Class meeting on 09/29/26 or 09/30/26

Friday 10/2/2026 Due in Canvas: 2.3 Part 2,2.4 Part 2, 3.1,3.2

Week 8

Monday 10/5/2026 Due in Canvas: Week 8 Preview Assignment and Quiz

Class meeting on 10/06/26 or 10/07/26

Friday 10/9/2026 Due in Canvas: 3.3,3.4

Week 9

Monday 10/12/2026 Due in Canvas: Week 9 Preview Assignment and Quiz

Class meeting on 10/13/26 or 10/14/26

Friday 10/16/2026 Due in Canvas: 3.5,3.6

Week 10

Monday 10/19/2026 Due in Canvas: Week 10 Preview Assignment and Quiz

Class meeting on 10/20/26 or 10/21/26 Exam 2

Friday 10/23/2026

Week 11

Monday 10/26/2026 Due in Canvas: Week 11 Preview Assignment and Quiz

Class meeting on 10/27/26 or 10/28/26

Friday 10/30/2026 Due in Canvas: 4.1,4.3

Week 12

Monday 11/2/2026 Due in Canvas: Week 12 Preview Assignment and Quiz

Class meeting on 11/03/26 or 11/04/26

Friday 11/6/2026 Due in Canvas: 4.4,4.5

Week 13

Monday 11/9/2026 Due in Canvas: Week 13 Preview Assignment and Quiz

Class meeting on 11/10/26 or 11/11/26

Friday 11/13/2026 Due in Canvas: 4.6,4.7

Week 14

Monday 11/16/2026 Due in Canvas: Week 14 Preview Assignment and Quiz

Class meeting on 11/17/26 or 11/18/26 Exam 3

Friday 11/20/2026

No Classes from November 23rd-29th due to Thanksgiving Break

Week 15

Monday 11/30/2026 Due in Canvas: Week 15 Preview Assignment and Quiz

Class meeting on 12/01/26 or 12/02/26

Friday 12/4/2026 Reading Day

See the first page of the syllabus for the day and time of your Final Exam. It is required, comprehensive and worth at least 20% of your overall grade.