MATH 1190.410: Business Calculus Fall 2026

Instructor Information

Name: Kyranna Kioulafa
Pronouns: She/Her
Office Location: GAB 469
Tutoring/Office Hours: Office hours will be held via Zoom by appointment. Please email me to schedule a time.
Email: Kyranna.Kioulafa@unt.edu
Meeting Location and Time: 100% online in Canvas

Communication Expectations:
I am easiest to reach by email. I will try to respond within 24 hours on weekdays (usually sooner). Emails sent over the weekend may not be answered until the following weekday. My goal is to return all hand-graded assignments and exams within a few days, and I will make sure to return them within one week.

Course Description

Differential and integral calculus with emphasis on applications to business.

Course Structure

This course takes place 100% online in Canvas. Information on how to be successful in a remote learning environment can be found at UNT Online (https://online.unt.edu/learn). This course is a 16-week course structured with 4 Unit modules. Each module has multiple lessons with assignments and assessments due.

Course Prerequisites or Other Restrictions

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 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 meeting 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.

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 website (https://studentaffairs.unt.edu/office-disability-access).

Materials

For this course, the **only required purchase is access to Knewton**. No textbook, additional materials, or separate access code is required. To purchase and access Knewton, log in to Canvas and go to:
Modules → Introduction → Getting Started with Knewton
Please follow the instructions provided there to set up your Knewton access. If you previously purchased two-year Knewton access for MATH 1180 or MATH 1190 and your access is still active, you do not need to purchase it again. All other course materials and resources will be provided through Canvas.

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 and webcam that can reliably access the internet and access Canvas (minimum requirements) and view content videos on Canvas or Youtube
- A calculator (see Calculator Policy)
- Ability to download, install and run software including Respondus Lockdown Browser
- Proficiency in using Canvas
- Proficiency in using Knewton (see Getting Started with Knewton in Canvas)
- Proficiency in using your calculator

Information on how to be successful in a digital learning environment can be found at Learn Anywhere (https://online.unt.edu/learn).

Calculator Policy

Many calculators are permitted for exams in this course. Recommended options include the **TI-36X, TI-30XIIS, TI-83, and TI-84**, as well as similar models from Casio or other manufacturers.

Calculators that are **not permitted** include the **TI-Nspire, TI-92, and TI-89**, as well as any calculator or device with alphanumeric/CAS capabilities or the ability to connect to the internet. Smartphones may not be used as calculators during exams.

A Desmos Scientific Calculator will also be available and accessible to you within each exam.

Course Evaluation

Business Calculus Readiness	5%
Knewton Homework	20%
Engagement	10%
Midterm Exams	45%
Final Exam	20%

Grade Assignment:

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

Policies/information directly affecting grades/grading

Buisiness Calculus Readiness:

The Business Calculus Readiness assessment is worth 5% of your overall course grade. You should complete this assessment within the first 14 days of the semester. The purpose of the assessment is to help you identify prerequisite skills and topics that may need review early in the course. You may take the Business Calculus Readiness quiz up to two times; your highest score will be used for your grade.

Homework:

The online homework assignments are worth **20% of your overall course grade**. Each homework assignment is **equally weighted**. Most homework assignments will be completed through **Knewton**, although some assignments may be completed directly in **Canvas**.

You should check **each Module in Canvas carefully**. Each module will show the learning materials and assignments that you are expected to complete for that unit. Do not rely only on your Canvas Dashboard or To-Do list, as all required course activities may not always appear there.

In addition, please read the **weekly Monday announcement** in Canvas. The announcement will identify what you should learn that week, which assignments you need to complete, and any important changes or additional instructions.

What is Knewton? Knewton is a mastery-based adaptive software and is designed to judge your ability to complete your assignments. You will be able to proceed through Knewton much more quickly if you study and review your notes and videos before starting the assignments.

Why do Homework? A purpose of homework is to provide you with sufficient opportunities to learn and practice the new content you are learning. Knewton is adaptive and mastery based, which means that the software will provide each student with the sufficient number of questions to judge whether each topics learning objectives have been mastered. This means a student who has prepared well before the assignment may have very short assignments, while a less well prepared student may take many more questions on each assignment. Again, the more you prepare before starting to attempt the exercises, the less work you will have. For more tips on how to get the most out of the homework assignments, read through “Getting Started with Knewton"

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.

Where is Knewton? You access your Knewton powered homework in one of two ways through Canvas, they are:
1. At the Syllabus portal. Every assignment for your course is accessible through the Syllabus portal. This portal is very helpful because it lists all assignments in due date order; or
2. At the content module. Select the Modules tab along the left-hand navigation of Canvas. From the Modules select Module 1. The Knewton assignments have a paper and pencil icon to their left.

When are Knewton Homework Assignments due? For each set of learning assignments, you will have **approximately one week to complete the work after the material is introduced**. Knewton homework assignments are generally due every **Monday at 11:59 PM Central Time**. This gives you time to review the learning materials, practice the concepts, and complete the corresponding assignments. Assignments due dates are also listed on the course calendar and in Canvas. To successfully complete your assignments, it is important to manage your time carefully. I strongly recommend completing assignments well before the deadline rather than waiting until the last minute. **Late homework will not be accepted.**

At the end of the semester, your **two (2) lowest homework grades will be automatically dropped** when calculating your homework average. Canvas will apply this rule automatically throughout the semester. For example, once you have completed **four homework assignments, your Canvas course total will already be calculated using only your two highest homework grades**, with the two lowest grades automatically dropped. As you complete additional assignments, Canvas will continue to automatically drop your two lowest homework grades.

Engagement

Engagement activities are worth **10% of your overall course grade**. These activities may include **course introduction and orientation assignments, discussion posts, unit wrap-up activities, and other assignments completed directly in Canvas**.

Discussion activities are designed to help you engage with the course material and stay connected with your classmates in our **100% online learning environment**.

Please check **each Module in Canvas** to see which engagement activities are required for that unit, and carefully read the **weekly Monday announcements** for reminders, due dates, and any additional instructions.

Your two (2) lowest engagement grades will be automatically dropped throughout the semester, and your Canvas course total will reflect these dropped grades as you complete additional engagement activities.

Midterm Exams

There will be **three required midterm exams**, covering the first three modules of the course. The midterm exams are worth **45% of your overall course grade**. Each exam will consist of approximately **20–25 multiple-choice questions** and will cover material from the corresponding module.

Midterm Exam Dates:

- **Exam 1 – Friday, September 11, 2026**
- **Exam 2 – Friday, October 9, 2026**
- **Exam 3 – Friday, November 6, 2026**

There will also be an **optional fourth exam**, covering Module 4. This exam will provide an opportunity to earn **extra credit toward your final exam grade**.

Your lowest midterm exam grade will be automatically dropped when calculating your midterm exam average. Canvas will automatically apply this rule throughout the semester.

If you miss one of the three required midterm exams, the missed exam grade will be **replaced by your final exam grade**. Therefore, please keep careful track of all exam dates.

All exams will be administered online using **LockDown Browser and Respondus Monitor with a webcam**. Before each exam, make sure you have tested LockDown Browser and confirmed that it is working properly on your computer. You are also responsible for having a **reliable internet connection**. Please do not wait until the day of the exam to test your technology.

Each midterm exam will have a **120-minute time limit**. Exams will be available from **12:01 AM until 11:59 PM Central Time** on the scheduled exam date. You must begin your exam early enough to complete it before the 11:59 PM deadline.

Formula Sheet: You may use **one handwritten, one-sided 8.5 × 11-inch formula sheet** during each exam. You may include formulas and brief notes of your choice. To help you prepare, a **sample formula sheet will be provided for each module** to give you an idea of the important formulas and information you may want to include on your own formula sheet. You may be required to show your formula sheet to the camera during the Respondus Monitor environment check.

No additional notes, printed materials, textbooks, or electronic resources are permitted. During exams, you may also use **writing implements (e.g., a pencil), blank sheets of scratch paper, and an approved calculator**. A **Desmos Scientific Calculator** will also be available within each exam.

Final Exam:

The **final exam will be held on Tuesday, December 8.** The final exam is **mandatory** and is worth **20% of your overall course grade**. The final exam is **comprehensive and will cover all material taught in this course throughout the semester**, including material from all four modules. The

format of the final exam will be similar to that of the midterm exams, but the exam will be longer. The same **formula sheet policy** used for the midterm exams will apply to the final exam.

For additional information about final exam dates and times, please refer to the UNT Final Exam Schedule.

Examination Policy

I structure my course to balance 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 or early. In the event of a schedule conflict with a university function, dental/physician's appointment, wedding, formal, etc., the student should make every effort to take the test early. 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.

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 that supports your learning and success. I welcome questions about any part of the course and am happy to clarify concepts or address concerns as they arise. **You are always welcome to email me if you have questions, need clarification, or need help with the course.** Most homework assignments are **automatically graded**, and you will be able to review your results and feedback in Canvas after the assignments are due.

I make it a priority to grade exams and other hand-graded work as quickly as possible. My goal is to return graded work **within a few days and no later than one week after the due date**.

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

Beginning April 11, 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.

Weekly Announcements and Course Updates

Each **Monday**, I will post a weekly announcement in Canvas outlining what you need to **learn and focus on that week**, as well as which **assignments or exams you need to complete**. I will also use these announcements to communicate any important course updates, schedule changes, or **extra credit opportunities**.

Occasionally, I may ask you to complete an assignment only up to a **specific score rather than 100%**. When this occurs, I will explain the requirement in the weekly announcement and will **adjust the grades afterward as needed**.

It is very important that you take a few minutes to **carefully read the Monday announcement every week**. Assignment or exam due dates may not always appear correctly on your Canvas Dashboard or To-Do list. Therefore, **do not rely solely on the Canvas Dashboard to keep track of your coursework and deadlines**.

You are responsible for checking the weekly announcements and keeping track of all assignment and exam due dates. Reading the Monday announcement each week will help ensure that you do not accidentally miss an assignment, exam, important course update, or extra credit opportunity.

Attendance and Participation

Students who read and follow the weekly announcements for the class are more likely to be successful. Your Canvas notifications should be enabled to ensure you receive course announcements on time. Students are responsible for all information and deadlines posted in Canvas.

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

Online Course Etiquette:

Appropriate and respectful behavior is expected of all students enrolled in this **100% online course**. Although we do not meet in a traditional classroom, the same standards of professionalism, courtesy, and academic responsibility apply to all online interactions.

Please communicate respectfully with your instructor and classmates in **emails, Canvas discussions, and all other course-related communication**. Be mindful that written communication can sometimes be interpreted differently than intended, so please use professional and courteous language.

You are expected to use **Canvas, Knewton, Respondus LockDown Browser, and other course resources appropriately** and only for their intended academic purposes. All submitted work must follow UNT's academic integrity policies and the requirements stated in this syllabus.

Because this is an online course, you are responsible for **checking Canvas regularly**, reading the **weekly Monday announcements**, keeping track of assignments and exams, and making sure you have the technology needed to complete your work. Do not rely solely on the Canvas Dashboard or To-Do list for deadlines.

If you are confused about an assignment, course policy, deadline, or anything else related to the course, **please email me rather than making assumptions. I am always happy to clarify.**

For additional information about your academic rights and responsibilities, please review UNT's 10 Academic Rights.

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 Knewton 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.

One last thought: 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.

Unauthorized Aids During Examinations and Assessments

Students may use only those materials and resources that are expressly authorized by the instructor for a particular examination or assessment. Touching, holding, or accessing any unauthorized aid during the examination period constitutes a violation of the Student Code of Conduct, regardless of whether the aid is used.

Any item that may be considered an unauthorized aid must be kept out of view and in a closed container (e.g. zipped backpack, buttoned purse, etc.) during the entirety of the examination or assessment.

Unless specifically authorized in writing by the instructor, prohibited aids include, but are not limited to:

• Mobile phones and smartphones
• Smartwatches and fitness trackers with communication, recording, or internet capabilities
• Tablets, laptops, and other computing devices
• Earbuds, headphones, and other audio devices

• Smart glasses, cameras, recording devices, and wearable technology
• Artificial intelligence (AI) tools, chatbots, and other generative AI technologies
• Notes, textbooks, study guides, formula sheets, or reference materials
• Any other device, material, or resource not expressly permitted by the instructor

Students are responsible for clarifying any questions about permitted materials before the examination begins.

Important Notice for F-1 Students taking Distance Education Courses Federal Regulation 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) https://digitalstrategy.unt.edu/clear/policies-procedures/f1-visa.html holders. Full-time status for F-1 Visa students is 12 hours for undergraduates and 9 hours for graduate students.

The Fall 2026 Course Calendar, including all assignment and exam due dates, can be found in your Canvas course under Syllabus → Course Summary. Please review the Course Summary regularly and make sure to read the weekly Monday announcements for important reminders, updates, or changes to the schedule.