Fall 2025
Math 1180.002: College Math for Business, Economics, and Related Fields
Syllabus

Instructor Information

Name: Md Suzan Ahamed

Pronouns: He/His/Him

Office Location: GAB-476, **Office Hours (Tutoring):** Monday (in-person): 01:30pm-03:30pm. I am also often available (in-person/Zoom) for appointments at other times (email me to schedule times).

Email: mdsuzan.ahamed@unt.edu

Class Meeting Location and Time: MWF: 10:00 am-10:50 am, Location: CURY HALL, Room# 204

Communication Expectations

The best way to reach me is via email. I 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 I 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

Topics from algebra (linear equations, quadratic equations, functions and graphs, inequalities), mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations, applications to management, economics and business.

Course Structure

This is a 15-week, face-to-face course that will cover Units 1-4. There will be three midterm exams, plus a comprehensive final exam. All the exams are in-person and on paper.

Course Prerequisites or Other Restrictions

Prerequisite(s): Two years of high school algebra and one year of geometry, and consent of department. Students who feel they acquired solid algebra skills in high school are strongly encouraged to take the mathematics placement exam to see if they may begin in MATH 1190 instead. A grade C or better in MATH 1180 is required when MATH 1180 is a prerequisite for other mathematics courses.

Course Learning Objectives

- Students will demonstrate an ability to recognize and solve problems involving financial mathematics, including simple interest, compound interest and present and future value of annuities
- Students will demonstrate an ability to understand graphing of equations, operations with lines, solve and interpret solutions of systems of linear equations and linear inequalities, and interpret solutions of standard maximization problems.
- Students will demonstrate skill at using tools from algebra. Students will demonstrate an ability to manipulate, solve, graph, and work with several types of functions.

- Students will demonstrate skill at using tools from probability, including counting, using conditional probability and finding expected values.
- Students will demonstrate skill at using exponential rules, factoring, function composition, interpreting results from rational functions and making and interpreting sign charts

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

Homework assignments will require accessing Knewton or Canvas "quizzes" through your UNT Canvas account. Log in to Canvas at https://unt.instructure.com, read through "Getting started with Knewton". Additional resources are listed in Canvas. You will have to purchase access to Knewton or continue access if you have used it for Math 1180 or 1190 and purchased the 2-year access within the last two years. This can be done through the Barnes and Noble link or other sellers. You can get free access for up to two weeks. For more information about your homework, please read the Homework section.

No textbook is required.

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 that can reliably access the internet and access Canvas (minimum requirements)
- A calculator (see Calculator Policy)
- Ability to download, install and run software
- 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 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.

GenAI Policy

AI is not allowed on exams. There are many avenues you can use to get help on homework—my office hours, email, the Math Lab, ...— all of which should be able to help you in the process of learning the material. AI is unlikely to be beneficial to you in learning math and sometimes will produce errors that are difficult to decode.

Knewton is Required

The homework and some course content will be delivered in Knewton, which must be accessed through via Canvas. You **will not** need a Knerd link as the access is provided directly in Canvas. Note: Mac users may find it easiest to use a browser other than Safari.

Course Evaluation

Homework	30%
Midterm Exams	50% total (Average of all midterm exams)
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

Homework:

The online homework is worth 30% of your overall course grade. Each assignment is equally weighted. Most homework will use an online software program called Knewton, though some will be directly in Canvas.

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 before starting the assignments. For best results, read through “Getting Started with Knewton" located in Canvas before your first assignment.

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 enough 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 Unit 1. The Knewton assignments have a paper and pencil icon to their left.

When are Knewton Homework Assignments due?

Assignment due dates are listed on the calendar and on the syllabus link in Canvas. Knewton assignments are always due at 11:59 PM. To successfully complete the assignments, you must carefully manage your time. I recommend that you plan to complete them well ahead of the due date. Late homework will not be accepted. At the end of the term, two (2) lowest grades will be dropped from the calculation of the homework average. In Canvas, the two dropped grades will not be correctly calculated until the very end of the semester.

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. The midterm exams account for a total of 50% of the overall course grade. Tentative dates are below as well as listed on the attached calendar.

Exam-1: Friday, September 19, 2025 (regular class time)
Exam-2: Friday, October 24, 2025 (regular class time)
Exam-3: Friday, November 21, 2025 (regular class time)

Final Exam:

The final exam is on **December 06, 2025 (08:00 am-10:00 am)**. **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.

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 homework assignments are due online through Canvas either directly in Canvas or via Knewton.

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 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

Beginning Nov 8, 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

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.

I will take attendance in every class and consider the attendance grade as an extra credit assignment.

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 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.

Tentative Weekly Calendar

Week 1

Monday 8/18/2025 Intro, Knewton, 1.1 Solving linear equations

Wednesday 8/20/2025 1.1: Solving linear equations cont., 1.2: Simple interest

Friday 8/22/2025 1.2: Simple interest

Week 2

Monday 8/25/2025 1.3: Exponential basics and Logarithmic basics, 1.4: Compound interest

Wednesday 8/27/2025 1.4: Compound interest cont.

Friday 8/29/2025 1.5: Future Value of an Annuity

Week 3

Monday 9/1/2025 Labor Day

Wednesday 9/3/2025 1.6: Present Value of an Annuity

Friday 9/5/2025 1.7: Financial Math extension problems, Review

Week 4

Monday 9/8/2025 2.1: Graphing, generally

Wednesday 9/10/2025 2.2: All about lines

Friday 9/12/2025 2.3: Finding points of intersection for two lines

Week 5

Monday 9/15/2025 2.4: Systems of linear equations and matrices

Wednesday 9/17/2025 Review

Friday 9/19/2025 **Exam 1**

Week 6

Monday 9/22/2025 2.5: Applied systems of linear equations

Wednesday 9/24/2025 2.6: Linear Inequalities and Systems of linear inequalities

Friday 9/26/2025 2.7: Linear programming, graphically

Week 7

Monday 9/29/2025 2.7: Linear programming, graphically cont.

Wednesday 10/1/2025 2.8: Simplex Method

Friday 10/3/2025 3.1: Functions

Week 8

Monday 10/6/2025 3.2: More about Functions

Wednesday 10/8/2025 3.3: Transformations of functions

Friday 10/10/2025 3.4: Quadratic functions and Factoring

Week 9

Monday 10/13/2025 3.4: Quadratic functions and Factoring cont.

Wednesday 10/15/2025 3.4: Quadratic functions and Factoring cont.

Friday 10/17/2025 3.5: Polynomial Functions

Week 10

Monday 10/20/2025 3.6: Rational functions

Wednesday 10/22/2025 Review

Friday 10/24/2025 **Exam 2**

Week 11

Monday 10/27/2025 3.7: Exponential functions

Wednesday 10/29/2025 3.7: Exponential functions cont., 3.8: Logarithmic functions

Friday 10/31/2025 3.8: Logarithmic functions cont.

Week 12

Monday 11/3/2025 4.1: Sets, 4.2: Counting Techniques

Wednesday 11/5/2025 4.3: Probability

Friday 11/7/2025 4.4: Expected Value

Week 13

Monday 11/10/2025 4.5: Conditional Probability and Independence

Wednesday 11/12/2025 4.6: More Exponential rule

Friday 11/14/2025 4.7: Function composition and decomposition

Week 14

Monday 11/17/2025 4.8: Other Algebra topics

Wednesday 11/19/2025 Review

Friday 11/21/2025 **Exam 3**

No Classes from November 24th-28th due to Winter Break/Thanksgiving.

Week 15

Monday 12/1/2025 4.8: Other Algebra topics cont.

Wednesday 12/3/2025 Review

Friday 12/5/2025 Reading Day

Your Final Exam is on **December 06, 2025 (08:00 am-10:00 am)**. It is required, comprehensive and worth at least 20% of your overall grade.

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