

Spring 2023

Mathematics 1325.001 – Business Calculus

MW 5:40PM – 7:05PM

Instructor Contact Information

Name: Dijana Armstrong
Email: darmstrong@uttyler.edu (preferred method of contact)
Phone Number: 903-510-2295
Office Hours: By appointment.

Course Description

This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences. Goal is to provide the student with the modern tools of Calculus required for today's managers. The ideal objective is that these tools will be used by the student with confidence in management in the future.

Text (optional)

College Mathematics for Business, Economics, Life Sciences, and Social Sciences, 14th edition, Prentice Hall by Barnett, Ziegler, and Byleen. ISBN-10: 0-321-94551-4

Note: Paper book is not required. You will need to purchase MyLab Math access code (instructions are posted on Canvas). Once you purchase the access code you will have access to e-book and online homework. Online homework is required for this class.

Required Material

MyLab Math access code, scientific, non-graphing calculator, access to a computer with fast, reliable internet connection.

Course Syllabus

1-09	9-1	Welcome and Introduction to Limits
1-11	9-2	Infinite Limits and Limits at Infinity
1-16		No Class
1-18	9-3	Continuity
1-23	9-4	The Derivative
1-25	9-5	Basic Differentiation Properties
1-30	9-7	Marginal Analysis
2-01		Review

2-06 Test 1
 2-08 10-1 The Constant e and Continuous Compound Interest
 2-13 10-2 Derivatives of Exponential and Logarithmic Functions
 2-15 10-3 Derivatives of Products and Quotients
 2-20 10-4 Chain Rule
 2-22 10-5 Implicit Differentiation
 2-27 10-6 Related Rates
 3-01 10-7 Elasticity of Demand
 3-06 11-1 First Derivative
 3-08 11-2 Second Derivative and Graphs
 3-13 to 3-17 Spring Break
 3-20 Review
 3-22 Test 2
 3-27 11- 3 L'Hôpital's Rule; 11-4 Curve Sketching Techniques
 3-29 11-5 Absolute Maxima and Minima
 4-03 11-6 Optimization
 4-05 12-1 Antiderivatives
 4-10 12-2 Integration by Substitution
 4-12 12-5 Fundamental Theorem of Calculus; Review
 4-17 Test 3
 4-19 Review
 4-24 to 4-29 Final's Week
 *Dates are subject to change

Evaluation of Grades

Students will be evaluated on the quality of their work on three major tests, quizzes, online homework and the final exam based on the following scale:

- 3 Tests.....45%
- Quizzes.....20%
- Online homework..... 15%
- Final Exam..... 20%
- Total..... 100%

Quizzes will be composed of problems similar to homework. This means that if you keep up with your homework, you should do very well on your quizzes (their average is the same weight as your final exam). Instead of giving makeup quizzes, I will drop the lowest quiz grade for everyone when I average them.

In addition, if you miss a test, that grade will be a zero until you take the final exam, at which time I will substitute the final exam grade for the missed test. If you don't miss any tests and your final exam grade is better than one of your 3 tests, I will substitute the final exam grade for that low test grade. Final exam is comprehensive and is worth 20% of your total average.

Calculator

You will need to use a scientific (non-graphing) calculator. Many different types will work well, but the TI-30XS is recommended.

Attendance

Class attendance is very important to your success. I will take roll once at the beginning of each class. If you come in late, notify me at the end of that class – otherwise you will be counted absent.

Cell Phone and Laptop Policy

When it is time for class to begin, please turn your phone and laptop to silent or off and put it out of sight.

Homework

There will be daily homework assignments online. These are very important. The best way to learn mathematics is to work mathematics problems.

Make up policy

Make-ups and extensions on assignments will only be granted in the case of severe illness, absences that are required as part of a UT Tyler obligation, or for religious observances. You need to notify me as soon as possible (or at least one week ahead of time in the case of a planned absence) and **provide appropriate documentation**.

Departmental policy is that no letter grade for the course will be two or more letters grades higher than the letter grade for the final exam.

Grade scale

- A..... 90-100%
- B..... 80-89%
- C..... 70-79%
- D..... 60-69%
- F..... 0-59%

UT Tyler Resources for Students

- Writing Center (903-565-5995) writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903-565-5964) tutoring@uttyler.edu
- UT Tyler Counseling Center (903-566-7254)

Mathematics Learning Center (MLC)

The Department of Mathematics provides a free tutoring service for UT Tyler students taking mathematics courses (Intermediate Algebra through Calculus II) in the Mathematics Learning Center located in RBN 4021. The MLC schedule can be found at <http://math.uttyler.edu/mlc/spring18/labschedule.html>. In the MLC students have access to free tutoring, and access to computers for online homework and Mathematica labs. Upon entering the MLC students are asked for their student ID which will be scanned for attendance and held until the student wishes to be scanned out before leaving the lab. The MLC is a place to do work related to your mathematics courses - it is not a general access lab used for surfing the internet

and checking email (this will be monitored by the tutors). The tutors in the MLC are there to help you, but they are not allowed to simply do your problems

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date (January 23, 2023) is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

Last day to withdraw from class: March 23, 2023.

From the First Day of Classes through the Last Day to Withdraw, students must process all withdrawals via the Online Course Drop or Withdrawal Request Form. Drops/withdrawals after Census Date and before the Last Day to withdraw will result in a grade of W or Q. Courses dropped prior to Census Date won't appear on the student's record or transcript.

Recording of Class Sessions

Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of

students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.

Covid Information

It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure (CDC quarantine/isolation guidelines). Please work with your faculty members to maintain coursework and please consult existing campus resources for support.

UT Tyler a Tobacco-Free University

- All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.
- Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.
- There are several cessation programs available to students looking to quit smoking, including counseling and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Campus Carry

The law of the State of Texas allows students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at

<http://www.uttyler.edu/about/campus-carry/index.php>

In addition, Section 4, a-1 of SB 11 states "a license holder commits an offense if the license holder carries a partially or wholly visible handgun, regardless of whether the handgun is holstered, on or about the license holder's person."

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to cstaples@uttyler.edu

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.