THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE

DEPARTMENT OF MATHEMATICAL SCIENCES

COURSE BASICS

Course Number:	MATH 1411: **CRN 22449**
Course Title:	Calculus I
Credit Hours:	4
Term:	Spring 2023
Meeting and Location:	None – course is entirely online via WebAssign and Blackboard
Prerequisite Courses:	MATH 1508 with a grade of C or higher or proper placement

INSTRUCTOR INFORMATION

Instructor:	Dr. Louise Guthrie
Office Location:	Online Only

Contact

Instructor email: lguthrie@utep.edu, or through ask your teacher at the top of each problem
Course coordinator: Julio Urenda, Ph. D. at jcurenda@utep.edu
Math Department: mathdept@utep.edu

Office Hours

For the first week of classes, I will hold an office hour TWR at 11 to noon via zoom. Use the following link: Dr. Guthrie office hours . Please make an appointment with me via email if you need help at another time. lguthrie@utep.edu .

Starting in week 2 the office hours and the zoom links will be posted in Blackboard.

Office hours are a time where you can get individualized help. We are available to answer questions about course content and address any concerns you have about the class. During scheduled times, you may drop in without an appointment. You are not required to attend the sessions if you do not have questions. If you do need help, and cannot attend during the scheduled times, please email me to schedule an appointment.

COURSE OVERVIEW

Course Objectives

You will clearly understand the ideas of differential and integral calculus as a solid foundation for subsequent courses in mathematics and other disciplines and direct application to real-life situations. Topics include limits, continuity, differentiation, and integration of functions of a single variable.

Learning Outcomes

Upon successful completion of Calculus I, you will:

- Compute limits and derivatives of algebraic, transcendental, and piece-wise defined functions.
- Identify and apply the most common derivative rules associated with the algebra of functions.
- Compute definite and indefinite integrals of algebraic, trigonometric, inverse trigonometric, exponential, logarithmic, and piece-wise defined functions.
- Determine the continuity and differentiability of a function on its domain.
- Analyze the derivative of a function to determine
    - Critical values
    - Inflection Points
    - Subsets of monotonicity
    - Subsets of fixed concavity
- Analyze the graph of a function to estimate its derivative and infer functional properties.
- Solve problems in a range of mathematical applications using the derivative of the integral; and
- Familiarize and apply
    - Rolle's Theorem
    - The Mean Value Theorem
    - The Intermediate Value Theorem
    - The Fundamental Theorem of Calculus

REQUIRED MATERIALS

Textbook

Calculus by Larson, 12th Edition (available as e-book and hardcover) with an Enhanced WebAssign Access code. ISBN-13: 978-0357749135

Required

You must have the Enhanced WebAssign access code. This gives you full access to both the assignments and the e-book.

Optional
A hard copy of the textbook is available but optional for the class. The e-book is adequate and comes with the necessary access code.

Calculator

A Scientific Calculator is required (for example, TI-30XIIS). A graphing calculator with derivative and integration capabilities is not allowed.

Online Components

You are required to have a WebAssign account (free) and the Enhanced WebAssign access code (paid access).

Ensure your UTEP e-mail account is working and you have consistent internet access and a stable web browser. Mozilla Firefox, Google Chrome, and Safari are the most supported browsers for both Blackboard and WebAssign.

You will need to have regular access to a computer or laptop. There may need to be more than a cell phone for doing coursework. You will need to download or update the following software:

- Microsoft Office (available for free through UTEP),
- Adobe,
- Windows Media Player or QuickTime Player, and
- Java.

Blackboard

Blackboard will be used for office hours and to post announcements. You grades will appear in Web assign since all of your assignments, quizzes and exams will be completed in web assign.

WebAssign

WebAssign is an online Course Management System of Cengage, the publisher of our text. You must have reliable internet to take this course. You will use the instructions below to access and register for WebAssign using your official *UTEP email account*. You will have a 14-day free trial to access your coursework immediately.

Instructions to access and register for WebAssign:

On the first day of classes, go to www.webassign.net and follow these steps:

1) Click on "Enter Class Key."
2) Enter the class key given her; be sure to include all three sections shown:

   utep 7638 4408

3) Verify the section number and instructor name, then enter your information. Please use your official UTEP miners' email and remember the password you create.
4) The next time you log in, click on "Log In" and enter your *UTEP miners e-mail* and the password you created.

You must purchase an access code to log in as soon as possible and before the grace period ends. If you bought a new book from the UTEP bookstore, the code should have come with it. When entering the code, enter all the words and characters in the boxes appropriately.

Activities and Assignments

You will find all assignments on www.webassign.net. Please use Mozilla Firefox, Google Chrome, or Safari since WebAssign works best with these browsers. All work, including homework, quizzes, and exams, will take place through WebAssign.

Resources

You will have course PowerPoint and video access through the Resources section of WebAssign. You can click on resources at the bottom of your WebAssign homepage and access PowerPoint lectures from the publisher and the Cengage lecture videos for each section we cover.

Tutoring

The MaRCS tutoring center offers free tutoring for math classes. Their website has more information: https://www.utep.edu/science/math/marcs/.

There are several valuable features in WebAssign designed to give extra help. These include "Watch it" and "Master it" links. These are publisher created and have been enabled for every homework question in which they are available.

We are also available during office hours to help with questions.

Website

UTEP MATH 1411 website: https://www.utep.edu/science/math/classes/calculus/index.html

Class Activity Settings

Homework Assignments

All homework will be completed on WebAssign. Each question has five attempts. I recommend you get help after the 3rd incorrect submission rather than waiting until you are out of attempts to get help.

The Ask Your Teacher feature of WebAssign is the best way to ask questions about your homework, as it shows me the entire problem. You are encouraged to use this as your first contact method whenever you have homework questions.

Quizzes

After a few homework sections, you will have a 60-minute timed quiz over that material again on WebAssign. These questionnaires may contain problems you have yet to see previously, but they will be based on the same concepts.

The password for all quizzes is the word **ready**.

Each question has three attempts. If you choose to start a quiz less than 60 minutes before the due date, the examination will conclude at the due date, and your answers will be auto-submitted. Please note that after you open the quiz assignment, it will show an updated due date and time precisely one hour after you begin that quiz. This is because it is a timed assignment you cannot return to work on later.

Exams

An exam review will be available one week before the exam date on WebAssign. The exam review is a homework score, so complete them promptly. The exams will be available on WebAssign for 24 hours on the date specified by the course calendar and listed below. The exam is timed at 120 minutes (two hours) and will have an accessible scientific calculator. You have two attempts at each problem.

Exam 1	**Thursday, February 16, 2023**
Exam 2	**Tuesday, March 28, 2023**
Exam 3	**Thursday, May 4, 2023**

The password for all exams is the word **ready**.

If you choose to start an exam less than 120 minutes before the due date, the exam will conclude at the due date, and your answers will be auto-submitted.

You have the opportunity to retake each midterm exam, where you have the chance to improve your grade if you desire. The exact dates are available on WebAssign. **The same scheduling rules apply to retake examinations.**

Final Exam

The final exam will be available **two consecutive days** during finals exam week. This exam is comprehensive and is required for all students. Remember, the final exam is worth 30% of your course grade. The final exam is timed at 165 minutes (2hr45min) and will have an accessible scientific calculator.

The password for the final exam is the word **ready**.

Timed Assignments

For all timed assignments, the clock begins once you open the task. This clock will not stop for any reason, not even if you log out. For this reason, checking for any updates on your computer before beginning the timed assignments is vital. The due date will change to reflect the time limit for timed tasks once you start the quiz or exam.

Grading Policy

Your graded work decomposes as follows

Category	**Percentage Weight Towards Final Grade**
Homework	10%
Quizzes	15%
Exam I	15%
Exam II	15%
Exam III	15%
Comprehensive Exam	30%

Letter grades are determined according to the following scale:

Numerical Value	Letter Grade
90 or above	A
80 or above but less than 90	B
70 or above but less than 80	C
60 or above but less than 70	D
Less than 60	C

We will establish a contract of work to be completed with deadlines.

Drop Policy

The Drop Date for this semester is Thursday, March 30, 2023, before 5:00 PM MDT. No drops will be approved after this date or time.

Students who decide to drop the course must process a drop form by sending an email from your official UTEP email account to records@utep.edu by the above date. When you email, be sure to do so from your official UTEP miners email account and include your full name, student ID number, and complete class details such as the course name, number, and CRN. Please note that the College of Science will remain aligned with the University and **will not approve any drop requests after that date**.

Incomplete Grade Policy

Incomplete grades may be requested only in exceptional circumstances after you have completed at least half of the course requirements successfully. Talk to me immediately if you believe an incomplete is warranted.

Course Schedule

A comprehensive course schedule is located on the last pages of this syllabus. Some semester highlights are included. You may refer to UTEP Academic Calendar for more details.

COURSE COMMUNICATION

Student office hours are when you can get individualized help either from me or from one of the two teaching assistants assigned to the class. We are available to answer questions about course content and address your concerns about the class. During scheduled times, you may drop in without an appointment. You are only required to attend the sessions if you have questions. If you need help and cannot participate during the scheduled time, please email, or text me to schedule an appointment.

Office hours are only held during regular university scheduling. Please allow one business day for the return of emails. Evening and weekend emails will be attended to during regular business hours—other times at the instructor's discretion.

During off-scheduling (Finals week) or condensed scheduling (late start, closed university), hours will be adjusted appropriately.

Ask your teacher

If you have a question about a specific problem please use the link that appears above the problem called 'ask your teacher". That way the problem is copied into the message and I can see the answers you gave for any previous attempts and you don't have to retype the problem.

Email

If it is not about help on a particular problem, UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 24-48 hours of receipt. Email me from your UTEP student account and put the course number and CRN number in the subject line. In the body of your e-mail, clearly state your question. At the end of your e-mail, be sure to put your first and last name and your university identification number.

UNIVERSAL COURSE POLICIES AND STATEMENTS

Make-up Policy

Homework

A homework extension can be requested within seven days after the due date. To do so, log in to WebAssign and click on My Assignments. Scroll to the assignment you want to extend and click Request Extension. Select "Automatic" and "Accept" the extension. The new due date will be 48 hours from when the extension is requested. Note that this means that the **timing** will also change. No penalty will be applied to problems submitted after the original due date. You may extend each homework assignment only once, so be sure you are ready to do the work when you accept the extension.

You may not view the key to a homework assignment before requesting the automatic extension.

Quizzes

There are no automatic extensions for quizzes. Quizzes are available before their due date. Please make plans to take the quiz early if you have a conflict.

If you feel like you have some extenuating circumstance or have an excused absence that will keep you from completing the assignment or quiz promptly, please get in touch with me immediately and be prepared to show supporting documentation.

University-Sponsored Events

These include, but not exclusively, attending conferences and athletic competitions. Please inform me of any traveling conflicts before they leave and make adequate arrangements to make up the missed material within one week of returning. Please do so to avoid the forfeiture of points.

Exams

A make-up exam will only be given in extraordinary circumstances, such as severe illness or death in the immediate family, and with appropriate documentation (e.g., doctor's note).

Alternative Means of Submitting Work in Case of Technical Issues

I strongly suggest you submit your work with plenty of time to spare if you have a technical issue with the course website, network, or computer. I encourage you to save all your work (answers to discussion points, quizzes, exams, and essays) in a separate Word document as a backup. This way, you will have evidence that you completed the work and will not lose credit. If you are experiencing difficulties submitting your work through the course website, please contact the UTEP Help Desk.

You can email me your backup document as a last resort. You must also have proof of the technical issue with at least a screenshot or email from your internet provider of an outage in your area.

Attendance Policy

You are expected to work toward the completion of the course assignments daily. Your completed tasks measure attendance in this course. Failing to complete tasks is equivalent to being absent. Please complete work for several weeks to avoid dropping from the course section. You must regularly check Blackboard and your UTEP Miners email for announcements and the WebAssign Announcement section.

Academic Integrity Policy

The University policy is that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. Any student who commits an act of academic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give an unfair advantage to a student or the attempt to commit such acts.

Each student is responsible for notice of and compliance with the Regents' Rules and Regulations provisions, which are available for inspection electronically at https://www.utsystem.edu/offices/board-regents/regents-rules-and-regulations.

All students are expected and required to obey the law, comply with the Regents' Rules and Regulations, with System and University rules, with directives issued by an administrative official during their authorized duties, and observe appropriate standards of conduct for the University. A student who enrolls at the University must conduct themselves in a manner compatible with the University's function as an educational institution.

Any student who engages in conduct that Regents' Rules prohibit and Regulations, U. T. System or University rules, specific instructions issued by an administrative official or by federal, state, or local laws is subject to discipline, whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such behavior.

Course Etiquette Policy

All correspondence with your instructor, TA, and other students should be conducted appropriately and professionally. Please be considerate of your tone and word choice in all your post.

Accommodation Policy

The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services, and activities with documented disabilities to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship for the University. Students requesting accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747- 5148, email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

COVID-19 Precautions

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you feel unwell, please let me know as soon as possible so we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu so that the Dean of Students Office can support you and help communicate with your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Centers for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

Please get in touch with me immediately if you fall ill during the semester so we can work together to formulate a strategy to help you get caught up as soon as possible.

Military Statement

If you are a military student with the potential of being called to military service or training during the semester, please get in touch with me as soon as you receive your orders.

Copyright Statement

All materials used in this course are protected by copyright law. The course materials are only for students currently enrolled in this course and only for this course. They may not be further disseminated.

Culture of Care Statement

UTEP promotes a culture of care and excellence. In this course, I strive to model kindness and do my best to support you in learning while maintaining high expectations and learning outcomes.

COURSE RESOURCES

Where you can go for assistance, UTEP provides a variety of student services and support:

Academic and Technology Resources

- **Help Desk:** If you are experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus, Academic Resources.
- **UTEP Library:** Access a wide range of resources, including online full-text access to thousands of journals and eBooks, and a reference service and librarian assistance.
- **Math Tutoring Center (MaRCS):** Ask a tutor for help and explore other available math resources.

Individual Resources

- **Military Student Success Center:** Assists personnel in any branch of service, and their dependents, to reach their educational goals.
- **Center for Accommodations and Support Services:** Assists students with ADA-related accommodations for coursework, housing, and internships.
- **Counseling and Psychological Services:** Provides various counseling services, including individual, couples, and group sessions, as well as career and disability assessments.

COURSE CALENDAR BY MONTH

<< << January 2023 >> >>

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	**16 - Today**	17 MATH 1411 - Spring 2023 section 21595 starts	18 Getting Started with WebAssign - Calculus 11:59 PM MST	19 1.1 Homework - A Preview of Calculus 11:59 PM MST	20 1.2 Homework - Finding Limits 11:59 PM MST	21
22	23 1.3 Homework - Evaluating Limits Analytically 11:59 PM MST	24	25 Quiz 1 (1.1 - 1.3) 11:59 PM MST	26 1.4 Homework - Continuity and One-Sided Limits 11:59 PM MST	27 1.5 Homework - Infinite Limits 11:59 PM MST	28 Quiz 2 (1.4 - 1.5) 11:59 PM MST
29	30	31	1 2.1 Homework - Derivative and Tangent Line Problem 11:59 PM MST	2 2.2 Homework - Differentiation and Rates of Change 11:59 PM MST	3 Quiz 3 (2.1 - 2.2) 11:59 PM MST	4

<<	<< February 2023 >>					>>
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
29	30	31	1 2.1 Homework - Derivative and Tangent Line Problem 11:59 PM MST	2 2.2 Homework - Differentiation and Rates of Change 11:59 PM MST	3 Quiz 3 (2.1 - 2.2) 11:59 PM MST	4
5	6 2.3 Homework - Product and Quotient Rules 11:59 PM MST	7	8 2.4 Homework - The Chain Rule 11:59 PM MST	9	10 2.5 Homework - Implicit Differentiation 11:59 PM MST	11
12	13 Quiz 4 (2.3 - 2.5) 11:59 PM MST	14	15 Exam 1 Review (1.1 - 2.5) 11:59 PM MST	16 Exam 1 (1.1 - 2.5) 11:59 PM MST	17	18
19	20 2.6 Homework - Related Rates 11:59 PM MST	21	22 3.1 Homework - Extrema on an Interval 11:59 PM MST	23	24 Retake Exam 1 (1.1 - 2.5) 11:59 PM MST Quiz 5 (2.6 - 3.1) 11:59 PM MST	25
26	27 3.2 Homework - Rolle's Theorem and MVT 11:59 PM MST	28	1 3.3 Homework - Inc/Dec Fnctns and First Deriv Test 11:59 PM MST	2	3 Quiz 6 (3.2-3.3) 11:59 PM MST	4

<<	<< March 2023 >>					>>
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
26	27 3.2 Homework - Rolle's Theorem and MVT 11:59 PM MST	28	1 3.3 Homework - Inc/Dec Fnctns and First Deriv Test 11:59 PM MST	2	3 Quiz 6 (3.2-3.3) 11:59 PM MST	4
5	6 3.4 Homework - Concavity and 2nd Derivative Test 11:59 PM MST	7	8 3.5 Homework - Limits at Infinity 11:59 PM MST	9	10 Quiz 7 (3.4-3.5) 11:59 PM MST	11
12	13	14	15	16	17	18
19	20 3.6 Homework - A Summary of Curve Sketching 11:59 PM MDT	21	22 3.7 Homework - Optimization Problems 11:59 PM MDT	23 3.8 Homework - Newton's Method 11:59 PM MDT	24 Quiz 8 (3.6-3.8) 11:59 PM MDT	25
26	27 Exam 2 Review (2.6 - 3.8) 11:59 PM MDT	28 Exam 2 (2.6 - 3.8) 11:59 PM MDT	29 4.1 Homework - Antiderivs, Indefinite Integration 11:59 PM MDT	30	31 4.2 Homework - Area 11:59 PM MDT	1

<<	<< April 2023 >>					>>
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
26	27 Exam 2 Review (2.6 - 3.8) 11:59 PM MDT	28 Exam 2 (2.6 - 3.8) 11:59 PM MDT	29 4.1 Homework - Antiderivs, Indefinite Integration 11:59 PM MDT	30	31 4.2 Homework - Area 11:59 PM MDT	1
2	3 4.3 Homework - Riemann Sums and Definite Integrals 11:59 PM MDT	4	5 4.4 Homework - Fundamental Theorem of Calculus 11:59 PM MDT	6	7 Quiz 9 (4.1 - 4.4) 11:59 PM MDT Retake Exam 2 (2.6 - 3.8) 11:59 PM MDT	8
9	10 4.5 Homework - Integration by Substitution 11:59 PM MDT	11 4.6 Homework - Numerical Integration 11:59 PM MDT	12 5.1 Homework - Natural Log Fnctn Differentiation 11:59 PM MDT	13 5.2 Homework - Natural Log Fnctn Integration 11:59 PM MDT	14 Quiz 10 (4.5 - 5.1) 11:59 PM MDT	15
16	17 5.3 Homework - Inverse Functions 11:59 PM MDT	18	19 5.4 Homework - Exponential Functions 11:59 PM MDT	20 5.5 Homework - Bases Other than e and Apps 11:59 PM MDT	21 Quiz 11 (5.2 - 5.4) 11:59 PM MDT	22
23	24 5.8 Homework - Inverse Trig Fnctns Integration 11:59 PM MDT	25 5.7 Homework - Inverse Trig Fnctns Differentiation 11:59 PM MDT	26 5.9 Homework - Hyperbolic Functions 11:59 PM MDT	27	28	29

<<	<< May 2023 >>					>>
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
30	1 Quiz 12 (5.5 - 5.9) 11:59 PM MDT	2	3 Exam 3 Review (4.1 - 5.9) 11:59 PM MDT	4 Exam 3 (4.1 - 5.9) 11:59 PM MDT	5	6
7 Final Exam Review - Comprehensive 11:59 PM MDT	8	9	10	11 Retake Exam 3 (4.1 - 5.9) 11:59 PM MDT	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

Final Exam