

THE UNIVERSITY OF TEXAS AT EL PASO

COLLEGE OF SCIENCE

DEPARTMENT OF MATHEMATICAL SCIENCES

COURSE BASICS

Course Number: MATH 1508 CRN 21409
Course Title: Pre-Calculus
Credit Hours: 5
Term: Spring 2024
Meetings & Location: MW 10:30 – 11:50 & T 10:30 – 11:20 in LART 204; Th 10:30 – 12:20 online
Prerequisite Courses: Proper placement

INSTRUCTOR INFORMATION

Instructor: Tuesday J. Johnson
Office Location: Library 510
Office Hours: MW 12:00 – 1:00 pm, Th 10:30 – 11:30 am

Contact

Instructor email: tjohnson3@utep.edu
Course coordinator: Julio Urenda, Ph. D. at jcurenda@utep.edu
Math Department: mathdept@utep.edu

Emails will be answered during normal university scheduling. Please allow 24 – 48 hours for the return of emails. Evening and weekend emails will be attended to during regular business hours. Other times at the discretion of the instructor.

Student Office Hours:

Student office hours are a time where you can get individualized help from me. I am 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 student office hour sessions if you do not have questions. If you do need help, and cannot attend during the scheduled time, please email me to schedule an appointment to meet in person or using Zoom.

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.

REQUIRED TECHNOLOGY AND MATERIALS

Textbook

Pre-Calculus by Larson, 11th Edition (available as e-book and hardcover) with the WebAssign access card.

ISBN-13: 9780357457207 (*This is the ISBN for the WebAssign code for Larson/Precalculus 11e.*)

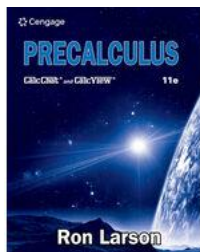


Image of Pre-Calculus Book Cover

Required

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

Optional

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

Calculator

A graphing calculator is recommended.

Online Components

You are required to have a WebAssign account and the Enhanced WebAssign access code.

Ensure your UTEP e-mail account works 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 our primary platform. Inside the Blackboard course you will be able to view announcements (also sent to your email), notes, and any video I find applicable to the course.

The course will be set up in chapters with all the notes from those chapters in one folder. I will post what are called “skeletal notes” which are the notes that I will be discussing in the lecture videos. These will be

available in .pdf format. I will also post the completed notes in a separate folder for ease of access in PDF format.

*All work will be completed on WebAssign, and your grade will be available there up to date all semester.

WebAssign

WebAssign is an online Course Management System of Cengage, the publisher of our text. You must have a reliable internet connection to take this course. 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 by your instructor. Be sure to include all three sections shown:
utep 8770 9734
- 3) Verify the section number and instructor name, then enter your information. Please use your official UTEP miners' email and remember the password you created.
- 4) The next time you log in, click "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, appropriately enter all the words and characters in the boxes.

COURSE OVERVIEW

Course Objectives and Learning Outcomes

Students are expected to clearly understand Precalculus's ideas as a solid foundation for subsequent courses in mathematics and other disciplines and direct application to real-life situations.

The entire course's content covers topics from fundamental mathematics and develops them using practical and theoretical tools, building applications, and making strong support for univariate calculus.

Upon successful completion of this course, you will:

- I. internalize the concept of function in general while recognizing and manipulating the following classes of univariate functions and their inverses where applicable:
 - a. exponential
 - b. polynomial
 - c. rational
 - d. trigonometric
- II. identify and solve systems of linear and non-linear equations and inequalities.

- III. Perform elementary matrix operations and relate them to solving linear problems.
- IV. identify the applicability and use of mathematical induction.
- V. Familiarize yourself with trigonometry and apply it to solve problems in science and engineering.

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, exams, and workshops, will occur through WebAssign.

Three exams, with retake options, will be given.

Mini-master and Test Out:

If students receive a "D" or "F," they may register for the Mini-master workshop or take a comprehensive Test Out exam. A 70% or better rate in the Mini-semester course or 70% on the complete Test Out exam will replace a failing course grade with a grade of "C." (A grade change form will be signed and submitted by the coordinator for Math 1508).

Resources:

You will have course PowerPoint and video access through the Resources section of WebAssign and Blackboard. 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. In Blackboard, I will provide Worksheets for each section, including notes and lecture videos.

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 for which they are available.

I am also available during office hours to help with questions.

Website

UTEP Math 1508 website: <http://www.math.utep.edu/classes/precalculus/>

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 on that material. These questionnaires may contain problems you have yet to see, but they will be based on the concepts developed in the course.

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 quiz will conclude at the due date, and your answers will be auto submitted.

Exams

To review for each exam, an exam review will be available one week before the exam date on WebAssign. The review assignment is part of your **mandatory** homework.

The exam will be available for the entirety of the day listed below, but once you start it, you have 120 minutes to finish it. However, 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 regardless of your progress. You will have access to a scientific calculator and a maximum of two attempts per problem.

Exam 1 Friday, February 16, 2024

Exam 2 Friday, March 29, 2024

Exam 3 Friday, May 3, 2024

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

Retake Exams

A retake exam, for improvement, will appear on WebAssign after the initial exam according to the class calendar and listed below. The best grade of the two will be recorded. You do not have to retake the exam if satisfied with your original score. **The rules for exams and retake exams are identical.** Their due dates are listed below:

Exam Retake 1 Wednesday, February 21, 2024

Exam Retake 2 Wednesday, April 3, 2024

Exam Retake 3 Wednesday, May 8, 2024

The password for all retake 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.

Workshop:

You will have a two-hour, online mandatory workshop meeting every week. You will be enrolled in the workshop class, so stay attentive to instructions from your course coordinator and teaching assistant. You will have resources available. You will have to attend a two-hour workshop meeting online every week via Zoom.

You will receive separate instructions on accessing the workshop sessions during the first week of classes.

Your workshop grade will be based on both your participation and attendance. You will answer questions in each workshop session that count towards your workshop attendance grade. Your workshop participation grade will be based on your active contribution and full engagement during each workshop session.

Timed Assignments:

For all timed assignments, the clock begins once you open the assignment. **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 essential. The due date will change to reflect the time limit for timed tasks once you start the quiz or exam.

Course Schedule:

A comprehensive course schedule is appended to this syllabus. For a complete academic calendar, please see the following [link](#).

Grading Policy

You will be graded on homework, quizzes, workshops, and exams.

Assessment	Percentage
Homework	10%
Quizzes	10%
Workshop	5%
Exams (three in total)	25% each

Letter grades are determined according to the following range:

Letter Grade	Range
A	Greater than or equal to 90
B	Greater than or equal to 80 but less than 90
C	Greater than or equal to 70 but less than 80
D	Greater than or equal to 60 but less than 70
F	Less than 60

Drop Policy

The Drop Date for this semester is March 28 before 5:00 PM Mountain Time. No drops will be approved after this date or time.

Students who decide to drop the course must process a drop form by emailing your miners email account to records@utep.edu. 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. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines.

COURSE COMMUNICATION:

We will meet three days each week and class is the best place to speak with me, but on the other days here are ways we will communicate:

- **Student Office Hours:** I will have office hours for your questions and comments about the course.
- **Course Messages:** Course messages in Blackboard is the best way to reach me for class related items or questions that are not homework specific. My inbox every day is crowded. I will respond to Blackboard Course Messages daily and always before checking regular UTEP email. This is most definitely your best option for getting my response more quickly.
- **Email:** UTEP e-mail is a way to contact me. I will make every attempt to respond to your e-mail within 24-48 hours of receipt. When e-mailing me, be sure to email from your UTEP student account and please put the course 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.
- **Announcements:** Check the Blackboard announcements frequently for any updates, deadlines, or other important messages. All Blackboard announcements will also be sent as an email to your UTEP account, but the announcements section will always archive these messages.
- **Discord:** I have a discord channel specifically for Applied Calculus, if you would like to join (it is free) the invitation link is <https://discord.gg/Gg6DHWsVyZ>.

ADDITIONAL COURSE POLICIES AND STATEMENTS

Make-up Policy

Homework

An automatic 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 before the extension is requested. Note that this means that the **time owed** will also change. No penalty will be applied to problems submitted after the original due date.

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

Quiz

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 conferences and student competitions, among others. The student must 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).

Workshop:

There is no makeup for the workshop.

Alternative Means of Submitting Work in Case of Technical Issues

You should submit your work with plenty of time to spare if you have a technical issue with the course website, network, and computer. I also suggest you save all your work (answers to homework, quizzes, and exams) in a separate Word document or hand-written notebook as a backup. This way, you will have evidence that you completed the work and will not lose credit. If you need help submitting your work through the course website, please get in touch with UTEP Help Desk.

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

Attendance Policy:

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

Academic Integrity Policy:

The University policy is that all suspected cases or acts of alleged academic 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. Academic 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 official 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 when working on a 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, 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 care for 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 contact me immediately if you fall ill during the semester so we can 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 service or training during the semester, contact me as soon as you receive your orders.

Copyright Statement:

Course Materials

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.

Class Recordings

Recordings will give you access to class lectures and group discussions if you miss a synchronous or in-person class meeting due to illness or other extenuating circumstances. Using such technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and UTEP's acceptable-use policy. A recording of class sessions will be kept and stored by UTEP by FERPA and UTEP policies. Your instructor will not share the recordings of your class activities outside of course participants, including your fellow students, teaching assistants, graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. You may not share recordings outside of this course. Doing so may result in disciplinary action.

COURSE RESOURCES:

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

Academic and Technology Resources

- [Help Desk](#): Students 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, reference service, and librarian assistance for enrolled students.
- [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 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.

Tentative Course Schedule

*Subject to change with notice

Assingment Name	Category	Due
Getting Started!	Homework	1-18-24 11:59 PM MST
Homework 1.1 - Rectangular Coordinates	Homework	1-18-24 11:59 PM MST
Homework 1.2 - Graphs of Equations	Homework	1-18-24 11:59 PM MST
Homework 1.3 - Linear Equations	Homework	1-18-24 11:59 PM MST
Quiz 1 [1.1,1.2,1.3]	Quiz	1-19-24 11:59 PM MST
Homework 1.4 - Functions	Homework	1-25-24 11:59 PM MST
Homework 1.5 - Analyzing Graphs of Functions	Homework	1-25-24 11:59 PM MST
Homework 1.6 - A Library of Parent Functions	Homework	1-25-24 11:59 PM MST
Homework 1.7 - Transformations of Functions	Homework	1-25-24 11:59 PM MST
Quiz 2 [1.4,1.5,1.6,1.7]	Quiz	1-26-24 11:59 PM MST
Homework 1.8 - Combining Functions	Homework	2-1-24 11:59 PM MST
Homework 1.9 - Inverse Functions	Homework	2-1-24 11:59 PM MST
Homework 2.1 - Quadratic Functions	Homework	2-1-24 11:59 PM MST
Homework 2.3 - Polynomial Division	Homework	2-1-24 11:59 PM MST
Quiz 3 [1.8,1.9,2.1,2.3]	Quiz	2-2-24 11:59 PM MST
Homework 2.4 - Complex Numbers	Homework	2-8-24 11:59 PM MST
Homework 2.5 - Zeros of Polynomials	Homework	2-8-24 11:59 PM MST
Quiz 4 [2.4,2.5]	Quiz	2-9-24 11:59 PM MST
Exam 1 Review	Homework	2-15-24 11:59 PM MST
Exam 1 [Password: ready]	Exam 1	2-16-24 11:59 PM MST
Exam 1 Retake [Password: ready]	Exam 1	2-21-24 11:59 PM MST

Homework 2.6 - Rational Functions	Homework	2-22-24 11:59 PM MST
Homework 3.1 - Exponential Functions	Homework	2-22-24 11:59 PM MST
Homework 3.2 - Logarithmic Functions	Homework	2-22-24 11:59 PM MST
Homework 3.3 - Properties of Logarithms	Homework	2-22-24 11:59 PM MST
Quiz 5 [2.6,3.1,3.2,3.3]	Quiz	2-23-24 11:59 PM MST
Homework 3.4 - Exponential and Logarithmic Eqns	Homework	2-29-24 11:59 PM MST
Homework 3.5 - Exponential and Logarithmic Models	Homework	2-29-24 11:59 PM MST
Homework 7.1 - Systems of Equations	Homework	2-29-24 11:59 PM MST
Quiz 6 [3.4,3.5,7.1]	Quiz	3-1-24 11:59 PM MST
Homework 7.2 - Two-Variable Linear Systems	Homework	3-7-24 11:59 PM MST
Homework 7.3 - Multivariable Linear Systems	Homework	3-7-24 11:59 PM MST
Homework 7.4 - Partial Fraction Decomposition	Homework	3-7-24 11:59 PM MST
Quiz 7 [7.2,7.3,7.4]	Quiz	3-8-24 11:59 PM MST
Homework 8.1 - Matrices and Systems of Equations	Homework	3-21-24 11:59 PM MDT
Homework 8.2 - Matrix Operations	Homework	3-21-24 11:59 PM MDT
Homework 8.3 - The Inverse Matrix	Homework	3-21-24 11:59 PM MDT
Quiz 8 [8.1,8.2,8.3]	Quiz	3-22-24 11:59 PM MDT
Exam 2 Review	Homework	3-28-24 11:59 PM MDT
Exam 2 [Password: ready]	Exam 2	3-29-24 11:59 PM MDT
Exam 2 Retake [Password: ready]	Exam 2	4-3-24 11:59 PM MDT
Homework 4.1 - Measuring Angles	Homework	4-4-24 11:59 PM MDT
Homework 4.2 - Trigonometric Functions	Homework	4-4-24 11:59 PM MDT
Homework 4.3 - Right Triangle Trigonometry	Homework	4-4-24 11:59 PM MDT

Homework 4.4 - Trigonometric Functions Cont.	Homework	4-4-24 11:59 PM MDT
Quiz 9 [4.1,4.2,4.3,4.4]	Quiz	4-5-24 11:59 PM MDT
Homework 4.5 - The Sine and Cosine Functions	Homework	4-11-24 11:59 PM MDT
Homework 4.6 - Other Trigonometric Functions	Homework	4-11-24 11:59 PM MDT
Homework 4.7 - Inverse Trig. Functions	Homework	4-11-24 11:59 PM MDT
Homework 4.8 - Applications and Models	Homework	4-11-24 11:59 PM MDT
Quiz 10 [4.5,4.6,4.7,4.8]	Quiz	4-12-24 11:59 PM MDT
Homework 5.1 - Fundamental Identities	Homework	4-18-24 11:59 PM MDT
Homework 5.2 - Trigonometric Identities	Homework	4-18-24 11:59 PM MDT
Homework 5.3 - Trigonometric Equations	Homework	4-18-24 11:59 PM MDT
Quiz 11 [5.1,5.2,5.3]	Quiz	4-19-24 11:59 PM MDT
Homework 5.4 - Addition Formulas	Homework	4-25-24 11:59 PM MDT
Homework 5.5 - Other Angle Formulas	Homework	4-25-24 11:59 PM MDT
Homework 6.1 - Law of Sines	Homework	4-25-24 11:59 PM MDT
Homework 6.2 - Law of Cosines	Homework	4-25-24 11:59 PM MDT
Quiz 12 [5.4,5.5,6.1,6.2]	Quiz	4-26-24 11:59 PM MDT
Exam 3 Review	Homework	5-2-24 11:59 PM MDT
Exam 3 [Password: ready]	Exam 3	5-3-24 11:59 PM MDT
Exam 3 Retake [Password: ready]	Exam 3	5-8-24 11:59 PM MDT