

# THE UNIVERSITY OF TEXAS AT EL PASO

## COLLEGE OF SCIENCE

DEPARTMENT OF MATHEMATICAL SCIENCES

### COURSE BASICS

Course Number: MATH 1508: [10876](#)  
Course Title: Pre-Calculus  
Credit Hours: 5  
Term: Fall 2023  
Meetings & Location: Tue-Thu 10:30-11:50 Liberal Arts Building 205  
Wed 10:30-11:20 Liberal Arts Building 101  
Fri 10:30-12:20 online  
Prerequisite Courses: Proper placement

### INSTRUCTOR INFORMATION

Instructor: Dr. Leobardo Valera  
Office Location: CCSB 2.0902F  
Office hours: MTWR 12:00-1:00  
TR 3:00-4:00

### Contact

Instructor email: [lvalera@utep.edu](mailto:lvalera@utep.edu)  
Course coordinator: Julio Urenda, Ph. D. at [jcurenda@utep.edu](mailto:jcurenda@utep.edu)  
Math Department: [mathdept@utep.edu](mailto:mathdept@utep.edu)

Emails will be answered within *weekdays from 9:00 am-5:00 pm*. Emails received outside these windows will be addressed during the next period or at my discretion, whichever is sooner.

Student Office Hours:

Student office hours are when you can get individualized help from me. I can answer course content questions and address your class concerns. 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 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 normal 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.*)

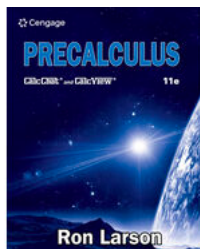


Image of Pre-Calculus Book Cover

### *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. You can see announcements, grades, and course materials inside the Blackboard course.

### Modules:

This course is designed using a modular format. Each chapter is “packaged” as a single module so that all the materials, lecture notes, submission areas, and discussion posts are in one location for a given week.

## WebAssign

WebAssign is an online Course Management System of Cengage, the publisher of our text. You must have reliable internet 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:

To enter your course on WebAssign on 08/29/2023 go to [www.webassign.net](http://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 given:

**[utep 2359 4783](#)**

- 3) Verify the section number and instructor name, then enter your information. Please use your 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](http://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 team, including notes and practice problems with solutions.

*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.

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, September 29, 2023**
- Exam 2      Friday, November 3, 2023**
- Exam 3      Friday, December 8, 2023**

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 you are satisfied with your original score. **The rules for exams and retake exams are identical.** Their due dates are listed below:

- Exam Retake 1    Wednesday, October 4, 2023**
- Exam Retake 2    Wednesday, November 8, 2023**
- Exam Retake 3    Wednesday, December 13, 2023**

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:

**The workshop consists of three WebAssign assignments listed as Workshop Assignments 1, 2, and 3. These are uniformly distributed across the entire course.**

#### *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, workshop, 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 November 3 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](mailto: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.

## 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 after 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 contact 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 contact 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 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 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](mailto: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](mailto: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](http://epstrong.org).



Please get in touch with 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.

### **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.

Name	Category	Due
Getting Started with WebAssign	Homework	8-31-23 11:59 PM MDT
1.1 Hmwk - Rectangular Coordinates	Homework	8-31-23 11:59 PM MDT
1.2 Hmwk - Graphs of Equations	Homework	8-31-23 11:59 PM MDT
1.3 Hmwk - Linear Equations in Two Variables	Homework	8-31-23 11:59 PM MDT
Quiz 1_1.1-1.3	Quiz	9-1-23 11:59 PM MDT
1.4 Hmwk - Functions	Homework	9-7-23 11:59 PM MDT
1.5 Hmwk - Analyzing Graphs of Functions	Homework	9-7-23 11:59 PM MDT
1.6 Hmwk - A Library of Parent Functions	Homework	9-7-23 11:59 PM MDT
1.7 Hmwk - Transformations of Functions	Homework	9-7-23 11:59 PM MDT
Quiz 2_1.4 - 1.7	Quiz	9-8-23 11:59 PM MDT
1.8 Hmwk - Combinations of Functions	Homework	9-14-23 11:59 PM MDT
1.9 Hmwk - Inverse Functions	Homework	9-14-23 11:59 PM MDT
2.1 Hmwk - Quadratic Functions and Models	Homework	9-14-23 11:59 PM MDT
2.3 Hmwk - Polynomial and Synthetic Division	Homework	9-14-23 11:59 PM MDT
Quiz 3 1.8 - 2.3	Quiz	9-15-23 11:59 PM MDT
2.4 Hmwk - Complex Numbers	Homework	9-21-23 11:59 PM MDT
2.5 Hmwk - Zeros of Polynomial Functions	Homework	9-21-23 11:59 PM MDT
Quiz 4_2.4-2.5	Quiz	9-22-23 11:59 PM MDT
Exam 1 Review	Homework	9-28-23 11:59 PM MDT
Exam 1 Password: ready	Exam 1	9-29-23 11:59 PM MDT
Exam 1 Retake Password: ready	Exam 1	10-4-23 11:59 PM MDT
2.6 Hmwk - Rational Functions	Homework	10-5-23 11:59 PM MDT
3.1 Hmwk - Exponential Functions and Their Graphs	Homework	10-5-23 11:59 PM MDT
3.2 Hmwk - Logarithmic Functions and Their Graphs	Homework	10-5-23 11:59 PM MDT
3.3 Hmwk - Properties of Logarithms	Homework	10-5-23 11:59 PM MDT
Quiz 5_2.6 & 3.1-3.3	Quiz	10-6-23 11:59 PM MDT
3.4 Hmwk - Exponential and Logarithmic Equations	Homework	10-12-23 11:59 PM MDT
3.5 Hmwk - Exponential and Logarithmic Models	Homework	10-12-23 11:59 PM MDT
7.1 Hmwk - Linear and Nonlinear Systems of Eqns	Homework	10-12-23 11:59 PM MDT
Quiz 6_3.4-3.5, 7.1	Quiz	10-13-23 11:59 PM MDT
7.2 Hmwk - Two-Variable Linear Systems	Homework	10-19-23 11:59 PM MDT
7.3 Hmwk - Multivariable Linear Systems	Homework	10-19-23 11:59 PM MDT
7.4 Hmwk - Partial Fractions	Homework	10-19-23 11:59 PM MDT
Quiz 7_7.2-7.4	Quiz	10-20-23 11:59 PM MDT
8.1 Hmwk - Matrices and Systems of Equations	Homework	10-26-23 11:59 PM MDT
8.2 Hmwk - Operations with Matrices	Homework	10-26-23 11:59 PM MDT
8.3 Hmwk - The Inverse of a Square Matrix	Homework	10-26-23 11:59 PM MDT
Quiz 8_Chapter_8	Quiz	10-27-23 11:59 PM MDT
Exam 2 Review	Homework	11-2-23 11:59 PM MDT
Exam 2 Password: ready	Exam 2	11-3-23 11:59 PM MDT
Exam 2 Retake Password: ready	Exam 2	11-8-23 11:59 PM MST
4.1 Hmwk - Radian and Degree Measure	Homework	11-9-23 11:59 PM MST
4.2 Hmwk - Trigonometric Functions	Homework	11-9-23 11:59 PM MST
4.3 Hmwk - Right Triangle Trigonometry	Homework	11-9-23 11:59 PM MST
4.4 Hmwk - Trigonometric Functions of Any Angle	Homework	11-9-23 11:59 PM MST
Quiz 9_4.1-4.4	Quiz	11-10-23 11:59 PM MST
4.5 Hmwk - Graphs of Sine and Cosine Functions	Homework	11-16-23 11:59 PM MST

4.6 Hmwk - Graphs of Other Trig Functions	Homework	11-16-23 11:59 PM MST
4.7 Hmwk - Inverse Trigonometric Functions	Homework	11-16-23 11:59 PM MST
4.8 Hmwk - Applications and Models	Homework	11-16-23 11:59 PM MST
Quiz 10_4.5-4.8	Quiz	11-17-23 11:59 PM MST
5.1 Hmwk - Using Fundamental Identities	Homework	11-23-23 11:59 PM MST
5.2 Hmwk - Verifying Trigonometric Identities	Homework	11-23-23 11:59 PM MST
5.3 Hmwk - Solving Trigonometric Equations	Homework	11-23-23 11:59 PM MST
Quiz 11_5.1-5.3	Quiz	11-24-23 11:59 PM MST
5.4 Hmwk - Sum and Difference Formulas	Homework	11-30-23 11:59 PM MST
5.5 Hmwk - Multi-Angle and Prod-to-Sum Formulas	Homework	11-30-23 11:59 PM MST
6.1 Hmwk - Law of Sines	Homework	11-30-23 11:59 PM MST
6.2 Hmwk - Law of Cosines	Homework	11-30-23 11:59 PM MST
Quiz 12_5.4-5.5, 6.1-6.2	Quiz	12-1-23 11:59 PM MST
Exam 3 Review	Homework	12-7-23 11:59 PM MST
Exam 3 Password: ready	Exam 3	12-8-23 11:59 PM MST
Exam 3 Retake Password: ready	Exam 3	12-13-23 11:59 PM MST