

College Algebra (MATH 1314)
Fall 2026



INSTRUCTOR CONTACT INFORMATION

Instructor: Mark Jhun Vinluan

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Office Phone: 409-617-6600

Office Location: Dr. Martin Luther King Jr. Collegiate Academy - Room 809

Office Hours: Monday to Friday, 7:15 AM - 3:00 PM

After-class Tutorials: Tuesday and Wednesday, from 3:15 PM to 4:15 PM



CREDIT: 3 units

MODE OF INSTRUCTION: Face-to-Face class

PREREQUISITE: A score of 950 or above on the TSI-Assessment placement test.

COURSE DESCRIPTION:

College Algebra is a comprehensive foundational mathematics course designed to develop algebraic reasoning and problem-solving skills essential for success in advanced mathematics and sciences. This course bridges the gap between high school algebra and calculus, emphasizing both computational proficiency and conceptual understanding of algebraic structures and functions. Students will explore linear and quadratic equations, polynomials, rational and radical expressions, functions and transformations, and exponential/logarithmic relationships through both theoretical and applied contexts.

The course focuses on mastery of algebraic manipulation, equation solving, functions, graphing, transformations, polynomial and rational expressions, radicals, and exponential and logarithmic models while strengthening mathematical reasoning, communication, and real-world problem solving. Students learn to solve and verify a wide range of equations, analyze key features of functions, model applied situations, and connect symbolic, graphical, and verbal representations. Designed to prepare students for calculus, statistics, and other college-level mathematics, the course typically expects prior high school algebra knowledge and uses homework, quizzes, exams, projects, and a comprehensive final assessment to measure understanding and readiness for further study.

COURSE OBJECTIVES:

By the end of the semester, students will:

1. Translate real-world situations into algebraic models and solve linear equations, inequalities, absolute value problems, and basic set operations.
2. Simplify, operate on, and factor polynomial expressions, including the use of exponents, scientific notation, and polynomial equations.
3. Work with radicals and complex numbers and solve quadratic equations using multiple methods while interpreting solutions in context.
4. Simplify and solve rational, radical, and quadratic-form expressions and equations, including identifying extraneous solutions and modeling applications.
5. Graph and analyze relations and functions, including circles and linear models, and determine domain, range, and real-world meaning.
6. Analyze and transform functions, evaluate symmetry and rates of change, study behavior and continuity, and perform operations such as composition and inverses.
7. Analyze quadratic and polynomial functions by identifying key features, finding zeros, using division theorems, solving optimization problems, and sketching graphs.
8. Analyze rational functions by determining restrictions, asymptotes, holes, intercepts, graph behavior, and real-world applications.
9. Work with inverse, exponential, and logarithmic functions by graphing, simplifying expressions, solving equations, and applying growth, decay, and logarithmic models.

REQUIRED TEXTBOOK AND MATERIALS

1. Miller/Gerken: College Algebra with Corequisite Support, 1st Ed. (McGraw-Hill)
2. ALEKS 360
3. TI-84 Calculator
4. Chromebook
5. Graphing papers

ATTENDANCE POLICY

1. Regular attendance is expected for all scheduled class sessions, including lectures and discussions.
2. Students are expected to arrive on time for each class session.
3. Attendance will be recorded at the beginning of each class session.
4. *Excused absences* may be granted for documented medical reasons, family emergencies, or other extenuating circumstances. It is the responsibility of the student to communicate such circumstances to the instructor as soon as possible.

5. In the event of an anticipated absence, students are encouraged to communicate with the instructor in advance.
6. Students with *excused absences* may be eligible for make-up work, including missed assignments, quizzes, or exams. The nature of make-up work will be determined on a case-by-case basis in consultation with the instructor.
7. Excessive absences may negatively impact your grade and could result in withdrawal from the course.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an “F” in the course.

STUDENT CODE OF CONDUCT STATEMENT

It is your responsibility as all registered Lamar Institute of Technology students to access, read, understand, and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. It may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

STARFISH

The institution employs an early alert system named Starfish. Periodically, you may be notified via email by Starfish concerning your academic standing, grades, and attendance. Faculty employ this tool to record attendance, raise flags or kudos, and facilitate appointments. Accessible through Blackboard or MyLIT, the Starfish link provides comprehensive academic alerts and guidance, aiding in your pursuit of academic success at LIT.

COURSE EXPECTATIONS

Instructor Expectations from Students

- Students should attend all scheduled classes, arrive on time, and actively participate in discussions, group work, and problem-solving activities. Consistent engagement is essential for mastering the material.
- Students are expected to review previous lessons, complete assigned readings, and bring required materials (notebook, calculator, Chromebook, etc.) to class. Homework and assigned problems should be attempted before each session.
- All homework, quizzes, projects, and assessments must be submitted by the stated deadlines. Late submissions may be penalized unless prior arrangements are made due to valid reasons.

- Students must complete their work and avoid any form of cheating, plagiarism, or unauthorized collaboration. Violations of academic honesty will result in disciplinary action as outlined by the institution's policies.
- Students are encouraged to ask questions during class, attend office hours, and utilize tutoring services or study groups when concepts are unclear. Taking initiative is key to success in this course.
- Graphing calculators, software, or online platforms may be required or allowed in specific contexts. Students should use these tools appropriately and follow all guidelines regarding their use during assessments.
- Students are expected to contribute to a respectful, inclusive, and focused classroom atmosphere. This includes listening actively, respecting others' viewpoints, and minimizing distractions.
- Students should take ownership of their learning, monitor their progress, and persist through challenging material. A growth mindset and consistent effort are critical for achieving course goals.

GRADING SYSTEM

Final grades will be calculated according to the following criteria:

- Test and Exams 60%
- Course Assignments 20%
- Core Assessment 20%

Exams

This course includes five (5) Chapter Tests and one Final Examination.

- The Chapter Tests will be taken through MyMathLab and will cover material from each unit or chapter.
- The Final Examination will be a **paper-and-pencil test** taken in person and will cover all topics from the entire course.

The Exams are worth 60% of your final grade and are required for all students.

There are no exemptions unless approved by the instructor in exceptional cases.

Missing the Final Exam is only allowed in serious, documented situations (e.g., medical emergency). If you miss the exam, you must follow the institution's formal process to request a special exam. Approval is not guaranteed.

Course Assignments

Course assignments are divided into two parts:

1. **Task Completion:** These are written handouts or worksheets that you will complete in the classroom.
2. **ALEKS Assignments:** These are your homework assignments and will be completed online using ALEKS.

Course assignments are 20% of your final grade.

Core Assessment

The Core Assessment is an institutional requirement that measures what you have learned by the end of the semester. It is designed to assess your understanding of the entire course content, covering all major topics discussed throughout the term. Course assessments are 20% of your final grade.

GRADE SCALE

Numerical Grade	Letter Grade
90 - 100	A
80 -89	B
70 - 79	C
60 - 69	D
0 - 59	F

GRADING AND REPORTING PROCEDURE

1. Teachers of record are required to post at least 1 grade in the Blackboard gradebook two days after the deadline for submission.
2. Students may turn in late work for a maximum penalty of 10 percent of the total grade for each day late. Teachers can use their discretion to reduce this penalty for the benefit of students. All work assignments must accept late work up to two days. After two days, it is up to the teacher's discretion to accept late work.
3. Students participating in UIL activities may be exempt from the No Pass, No Play rule in Advanced Placement courses identified in 33.081 of the TEXAS EDUCATION CODE. The district's exemption guidelines are as follows:

- a. The student's grade cannot be below 70 percent.
- b. The student must have no zeros recorded in the teacher's gradebook for the corresponding grading period.

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Catalog and Handbook at <http://catalog.lit.edu/content.php?catoid=4&navoid=111#academic-dishonesty>

MATH AI POLICY

No AI tools, apps, software, etc. are to be used on any work that is scored, graded, assessed, etc. This includes all homework, exams, tests, projects, assessments, quizzes, discussions, etc. Failure to follow these guidelines (as deemed by the instructor) may be considered academic dishonesty and will be managed by instructor discretion, or for exams, the Math testing policy.

MATH TESTING POLICY

- All online Math courses will use Respondus Lockdown Browser and Monitor. This means students will be recorded when taking exams and will need a webcam and microphone.
- If a student is suspected of cheating, such as with AI use or other cheating methods, the student will be given a zero on the exam. The student will have one week of being notified to have a meeting with the instructor either face to face in the instructor's office or through an online method through such means as Microsoft Teams or Zoom. During this meeting, the student may be asked to work out problems or even the entire test in front of the instructor to adjust the student's grade.
- If the student is caught using AI or the student fails to meet with the instructor within one week of notification, or the student is unable to complete the work on the exam with the instructor present, a zero will be given for that exam or assignment, and there will be no opportunity for a redo.

DISABILITIES STATEMENT

LIT is dedicated to ensuring that all students have equal access to educational opportunities. If you require accommodations due to a documented disability, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu at the beginning of the semester. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

CELL PHONE (DISTRICT POLICY): If I see or hear a cell phone, it will be confiscated, as well as any other electronic device. All electronic devices should be OFF and in your bag, not in your pockets. This includes, but is not limited to, cords, earbuds, and smartwatches. The device will be turned in to the office once it's not in the bag.

COURSE CALENDAR (Dates and assignments subject to change with or without notice.)

Week	Topic	Assignment due date
Aug 12 - 14	Chapter 1. Linear Equations and Inequalities 1.1 Algebraic Expressions and Models 1.2 Linear Equation in One Variable	
Aug 17 - 21	1.3 Applications of Linear Equations in One Variable 1.4 Union and Intersection of Sets 1.5 Linear and Compound Inequalities	
Aug 24 - 28	1.6 Absolute Value Equations 1.7 Absolute Value Inequalities Chapter 2. Polynomials 2.1 Integer Exponents and Scientific Notation	Test 1 due Aug 27 at 11:59 PM
Aug 31 - Sep 4	2.2 Operations on Polynomials 2.3 Greatest Common Factor and Factoring by Grouping 2.4 Factoring Trinomials	
Sep 8 - 11	2.5 Factoring Binomials Chapter 3. Quadratic Equations 3.1 Introduction to Radicals and their Simplification	Test 2 due Sep 10 at 11:59 PM
Sep 14 - 18	3.2 Multiplying Radicals and Rationalizing the Denominator 3.3 Complex Numbers 3.4 Solving Quadratic Equations by Factoring 3.5 Solving Quadratic Equations by the Square Root Property 3.6 Solving Quadratic Equations by Using the Quadratic Formula	Test 3 due Sep 21 at 11:59 PM
Sep 21 - 25	Chapter 4. More Expressions and Equations 4.1 Multiplication and Division of Rational Expressions	

	4.2 Addition and Subtraction of Rational Expressions 4.3 Rational Equations 4.4 Application of Rational Equations	
Sep 28 - Oct 2	4.5 Rational Exponents 4.6 Radical Equations and Equations with Rational Exponents 4.7 Equations in Quadratic Form	Test 4 due Oct 5 at 11:59 PM
Oct 5 - 8	Chapter 5 Functions and Relations 5.1 The Rectangular Coordinate System and Graphing Utilities 5.2 Circles	
Oct 14 - 16	5.3 Functions and Relations 5.4 Linear Equations and Two Variables and Linear Functions	
Oct 19 -23	5.5 Applications of Linear Equations and Modeling Chapter 6. Transformations and Analysis of Functions 6.1 Transformations of Graphs 6.2 Symmetry and Piecewise-Defined Functions	Test 5 due Oct 26 at 11:59 PM
Oct 26 - 30	6.3 Average Rate of Change, Difference Quotients, and Function Behavior 6.4 Algebra of Functions and Function Notation Chapter 7. Polynomial Functions 7.1 Quadratic Functions and Applications	Test 6 due Nov 2 at 11:59 PM
Nov 2 - Nov 6	7.2 Introduction to Polynomial Functions 7.3 Division of Polynomials and the Remainder and Factor Theorem 7.4 Zeros of Polynomials	Test 7 due Nov 9 at 11:59 PM
Nov 9 - Nov 13	Chapter 8. Rational Functions 8.1 Introduction to Rational Functions 8.2 Graph of Rational Functions 8.3 Rational Inequalities	Test 8 due Nov 16 at 11:59 PM

Nov 16 - Nov 20	Chapter 9. Exponential and Logarithmic Equations 9.1 Inverse Functions 9.2 Exponential Functions 9.3 Logarithmic Functions	
Nov 23 - 27	Fall Break Core Assessment	Core Assessment due Nov. 30 (classroom)
Nov 30 - Dec 4	9.4 Properties of Logarithms 9.5 Exponential Equations and Applications 9.6 Logarithmic Equations and Applications	Test 9 due Dec 7 at 11:59 PM
Dec 7 - 8	<u>Final Examination</u>	

Declarations Page

By signing this page, you agree to the Rules & Regulations set in place by Mr. Vinluan for his class. If you have any questions or concerns, please write them on this page in the blank space along with your email address and/or phone number so I can contact you.

Signature _____ **Date** _____