

College Algebra (MATH 1314)

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 Lab hours lab)

MODE OF INSTRUCTION: Lecture (F2F)

PREREQUISITE/CO-REQUISITE:

TSI Complete for Math

COURSE DESCRIPTION

In-depth study and applications of polynomial, rational, radical, exponential, and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to:

1. Demonstrate and apply knowledge of properties of functions, including domain and range, operations, compositions, and inverses.
2. Recognize and apply polynomial, rational, radical, exponential, and logarithmic functions and solve related equations.
3. Apply graphing techniques.
4. Evaluate all roots of higher degree polynomial and rational functions.
5. Recognize, solve, and apply systems of linear equations using matrices.

CORE OBJECTIVES MEASURED

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. **Communication Skills:** To include effective development, interpretation and expression of ideas through written, oral, and visual communication.
3. **Empirical and Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.



**LAMAR INSTITUTE
OF TECHNOLOGY**

INSTRUCTOR CONTACT INFORMATION

Instructor: Irma Moulton

Email: ilmoulton@lit.edu

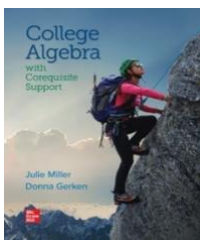
Class Location: Technology Center, Room 100

Office Phone: N/A

Office Location: Our Classroom, Technology Center Room 100

Office Hours: 5 PM to 5:30PM

REQUIRED TEXTBOOK AND MATERIALS



1. 360 Days Access (Standard) \$73.44

ISBN10: 1264198434 | ISBN13: 9781264198436

(Comes inclusive with ELE bundle for \$15 per SCH or \$45)



2. A scientific calculator: Texas Instrument TI 30Xiiis will be used by the instructor, but you may use **any scientific calculator**.

****Cell Phones and Graphing Calculators are NOT allowed in this Course. ****

3. Access to a computer with internet access.

ATTENDANCE POLICY

Attendance is required, **online students should login and work on assignments 2-3 times per week, minimum.**

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified date as listed in the College Calendar on the [Student Success](#) web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

The Instructor reserves the right to modify this schedule as needed during the course. Changes will be communicated in writing.

COURSE CALENDAR

<i>Week Of:</i>	<i>Sec</i>	<i>Topic</i>	<i>Homework due:</i>
8/25		Introduction, Syllabus, Blackboard, and ALEKS	8/25
9/1	3.3 3.6 4.3	Complex Numbers Solving Quadratic Equations Rational Equations	9/22
9/8	4.5 4.6 4.7	Rational Exponents Radical Equations Equations in Quadratic Form	9/22
9/15	5.1 5.3	Rectangular Coordinate System and Graphing Utilities Functions and Relations Exam #1 Review over Chapters 3, 4 and 5 in ALEKS	9/22
9/22		Module 1 Test	
9/29	5.4 6.1 6.2	Linear Equations in Two Variables Transformations of Graphs Symmetry and Piecewise Functions	10/20
10/6	6.4 7.1 7.2	Algebra of Functions and Function Composition Quadratic Functions and Applications Introduction to Polynomial Functions	10/20
10/13	7.3 7.4	Division of Polynomial Functions and the Remainder and Factor Theorems Zeros of Polynomials Exam #2 Review over Chapters 5, 6 and 7 in ALEKS	10/20
10/20		Module 2 Test	
10/27	8.1 8.2 9.1	Introduction of Rational Functions Graphs of Rational Functions Inverse Functions	11/24
11/3	9.2 9.3	Exponential Functions Logarithmic Functions	11/24
11/10	9.4 9.5	Properties of Logarithms Exponential Equations and Applications	11/24
11/17	9.6 11.1	Logarithmic Equations and Applications Solving Systems of Linear Equations Using Matrices Exam #3 Review over Chapters 8, 9 and 11 in ALEKS	11/24
11/24		Module 3 Test	
12/1		Final Review	12/8
12/8		Final/Core Assessment	12/8

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Test 60%
- Assignments 20%
- Core Assessment 20%

GRADE SCALE

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

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of 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*. The *LIT Catalog and Student Handbook* 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.

ARTIFICIAL INTELLIGENCE STATEMENT

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 instructor within one week of notification or the student is unable to complete the work on the exam with instructor present, a zero will be given for that exam or assignment, and there will be no opportunity for a redo.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Homework will be assigned each week as listed above in the detailed lesson plan. These assignments will be completed online in Aleks. In order to succeed in any math class, you must do the math. Mathematics is just like any sport, you learn through practice and repetition. It typically does not matter how good your notes are or how much effort you have put into asking for help, you have to practice it yourself. You will have access to the e-book in Aleks. You will also have access to author videos, YouTube Videos and PowerPoints all in folders in Course Content of Blackboard. I am also very excited to tell you that there are free math tutors in the Eagle's Nest. You will have one week to work on each set of homework assignments.

Attendance is part of an assignment grade. Pace yourself and do some each night. There is a deadline for each assignment. It does not matter if the internet goes out or some unforeseen circumstance pops up, the homework will not be extended past the due date. If the homework is done after the due date, 50% of your grade will be deducted from the late assignment. The last day to access all homework assignments will be a week before the end of the semester. There will also be online Reviews for each test in Aleks. The reviews are quiz grades, moreover these reviews / quizzes will not be open after their deadline. All exams will be taken in class on paper. Tests cannot be taken late.